

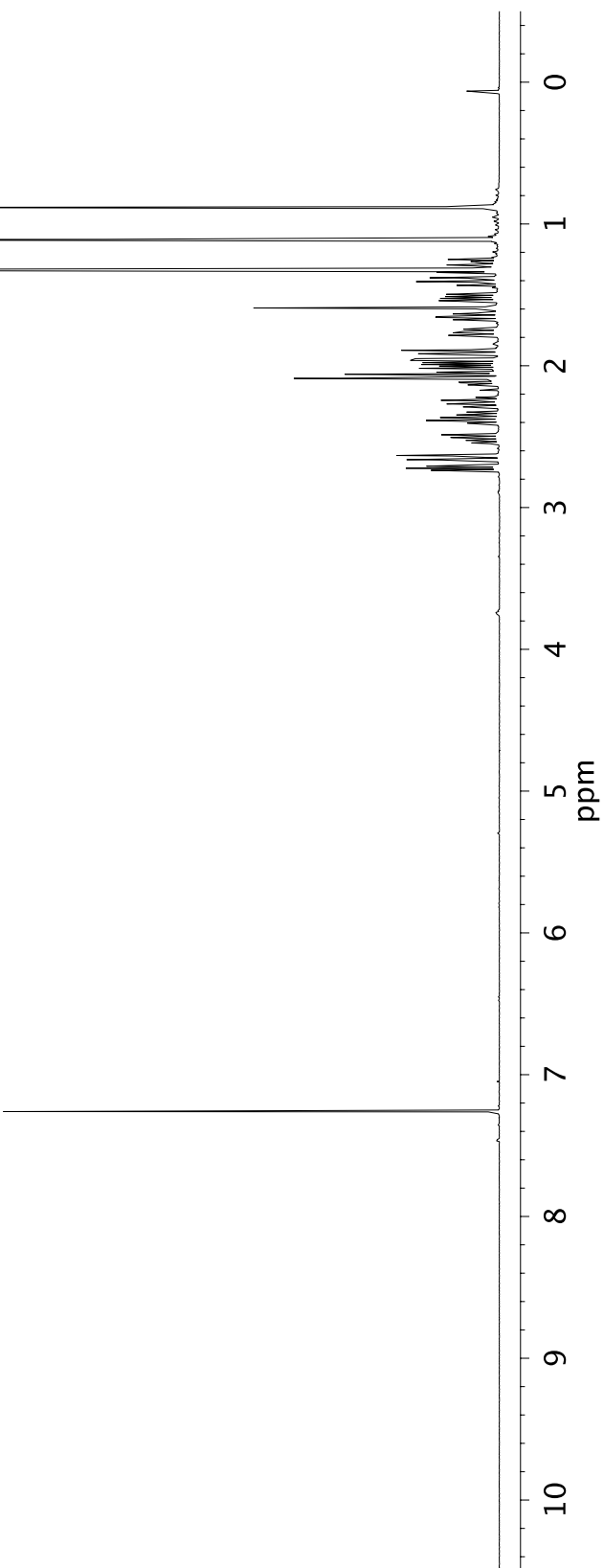
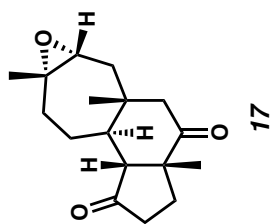
**Synthesis of non-natural cyanthiwigin–gagunin hybrids through late-stage
diversification of the cyanthiwigin natural product core**

Kelly E. Kim, Yuka Sakazaki, and Brian M. Stoltz*

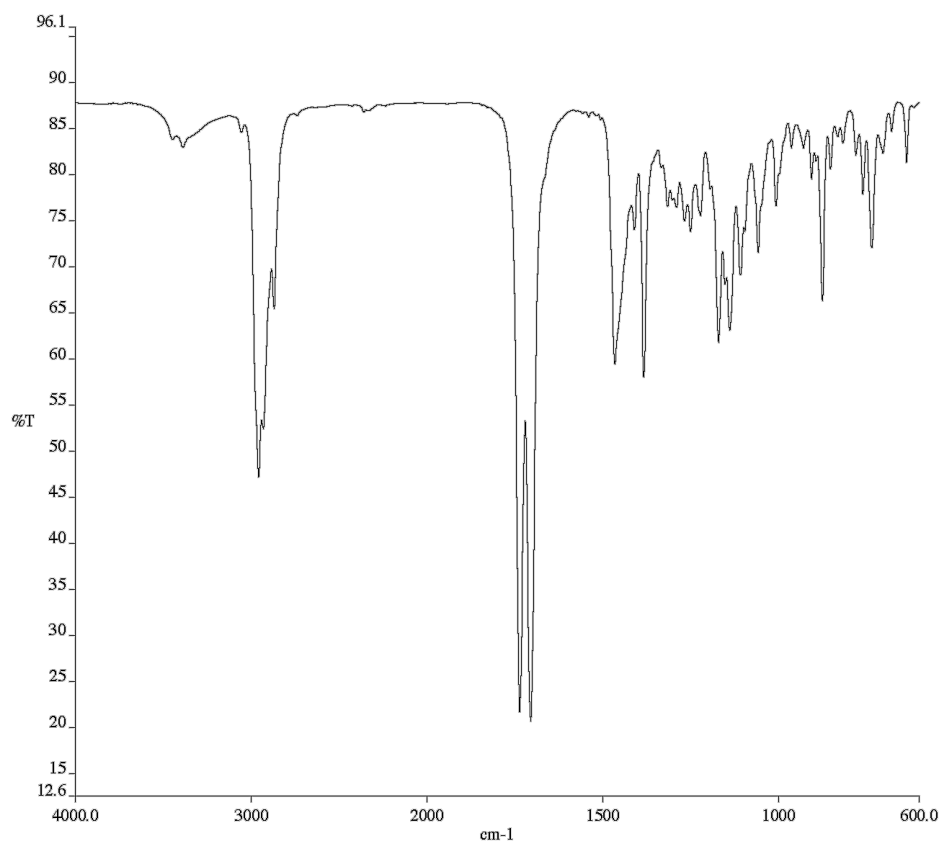
*The Warren and Katharine Schlinger Laboratory for Chemistry and Chemical
Engineering, Division of Chemistry and Chemical Engineering, California Institute of
Technology, 1200 E. California Blvd, MC 101-20, Pasadena, CA 91125 (USA)*

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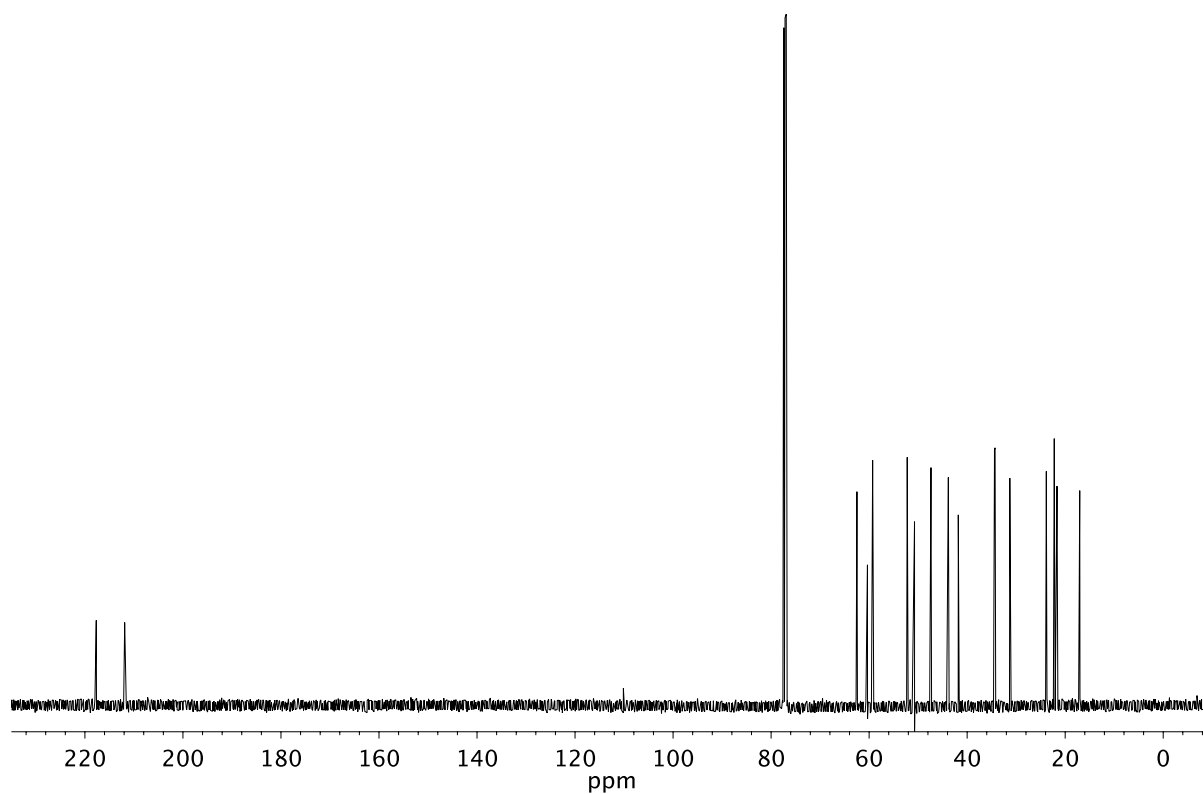
Experimental Spectra (^1H NMR, ^{13}C NMR, 2-D NMR, IR)	S2
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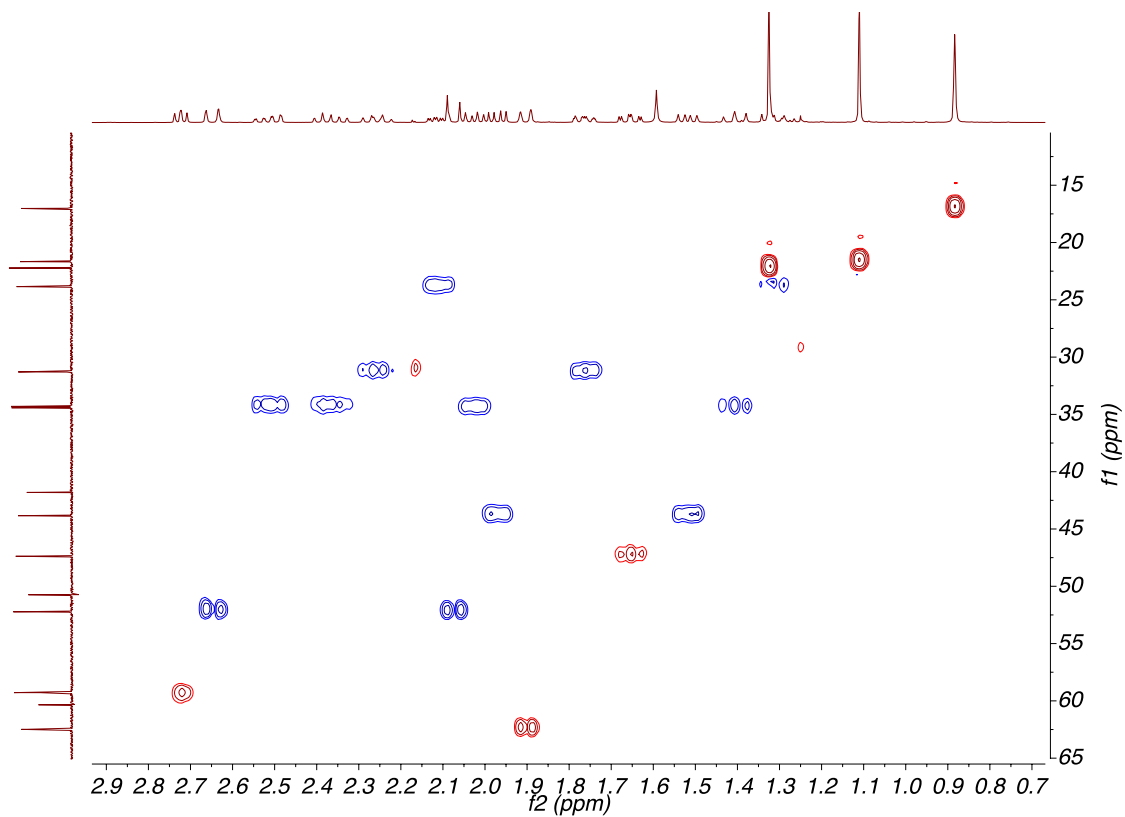
^1H NMR (500 MHz, CDCl_3) of compound **17**.



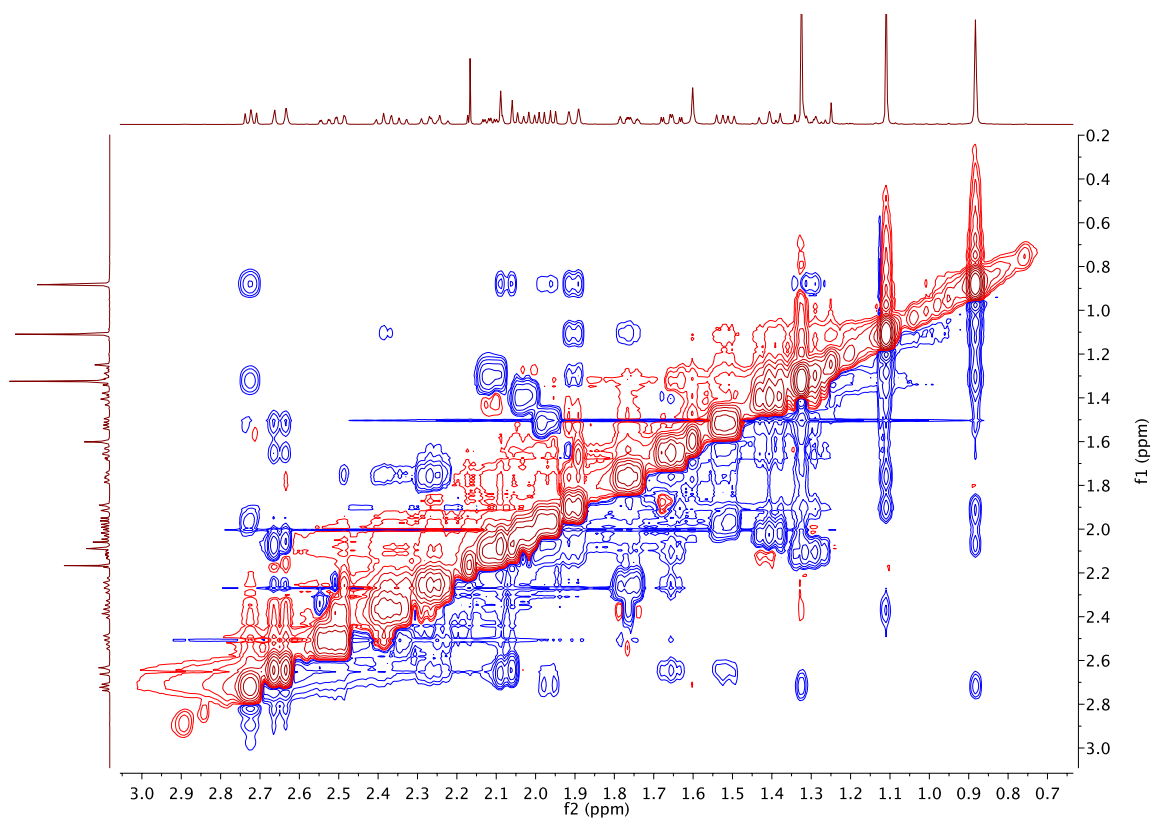
Infrared spectrum (Thin Film, KBr) of compound **17**.



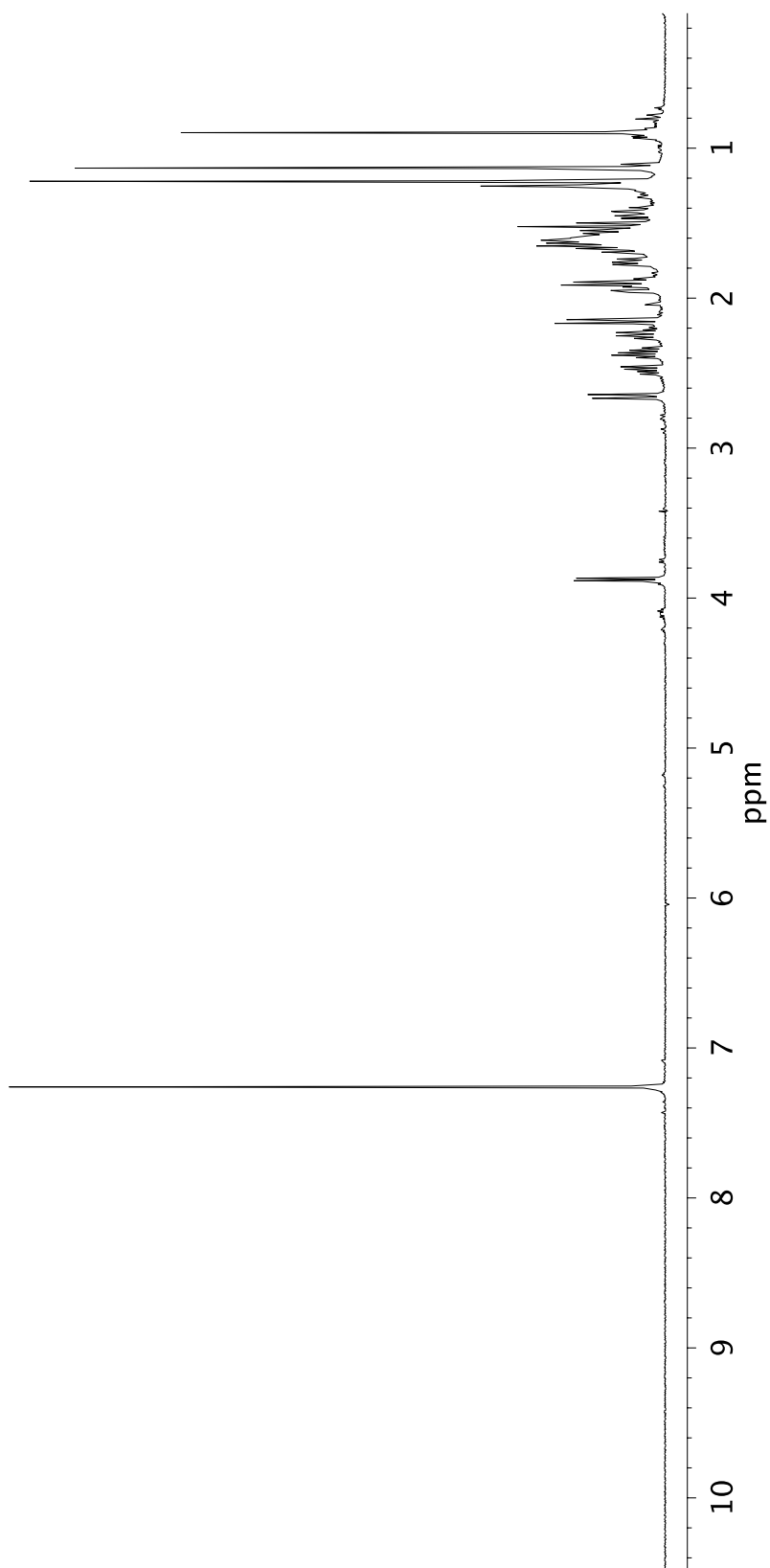
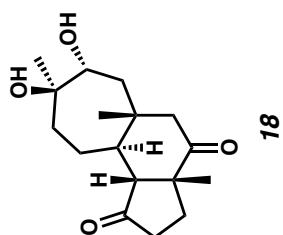
¹³C NMR (126 MHz, CDCl₃) of compound **17**.



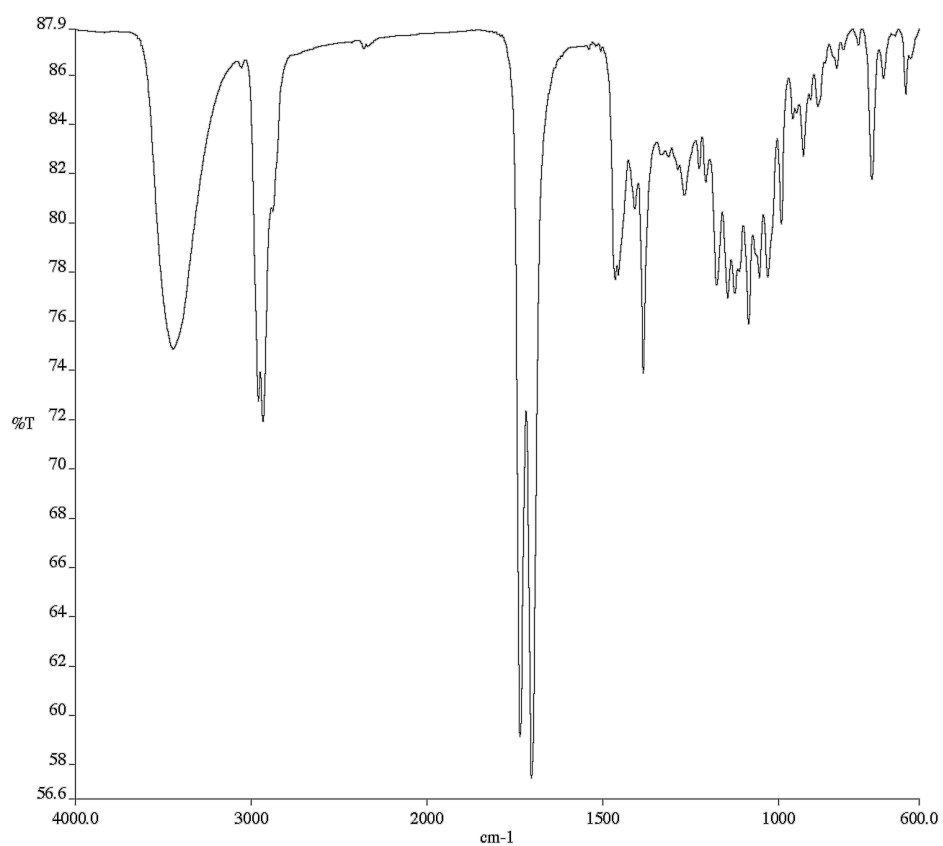
HSQC (500, 126 MHz, CDCl_3) of compound **17**.



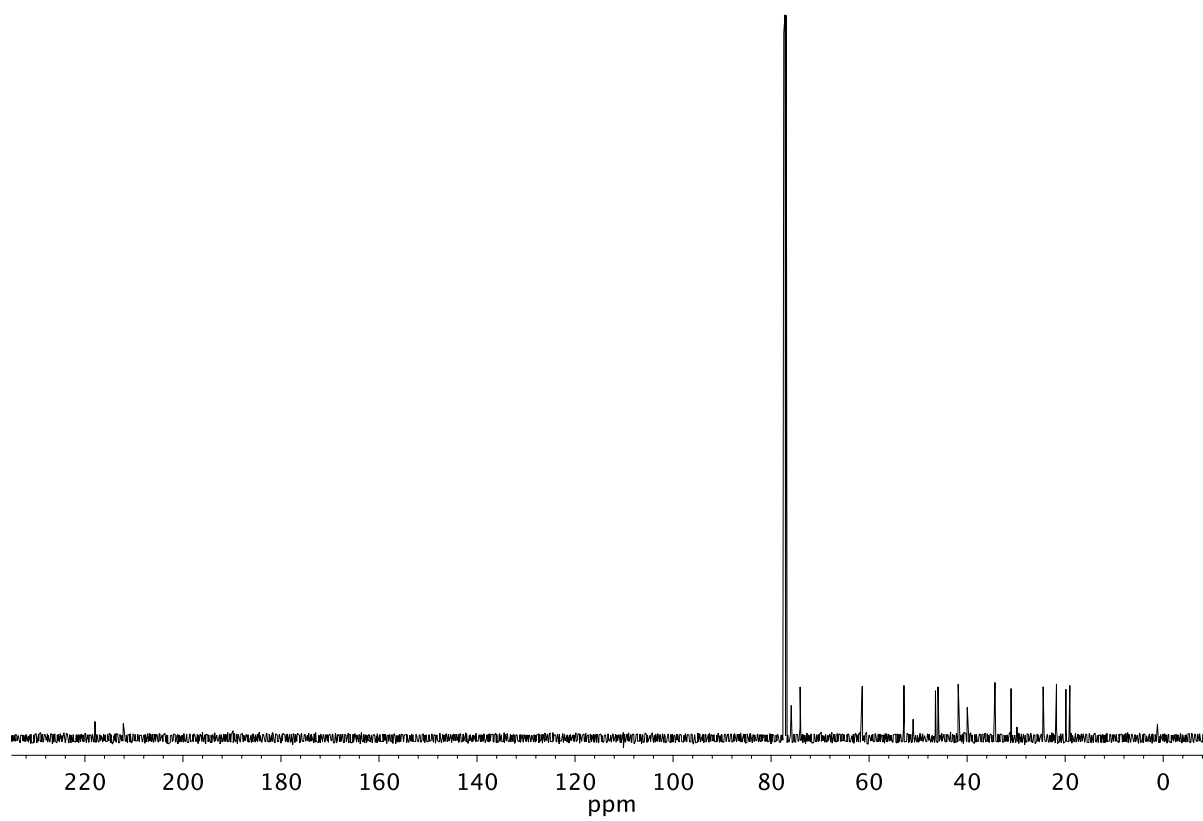
NOESY (500 MHz, CDCl_3) of compound **17**.



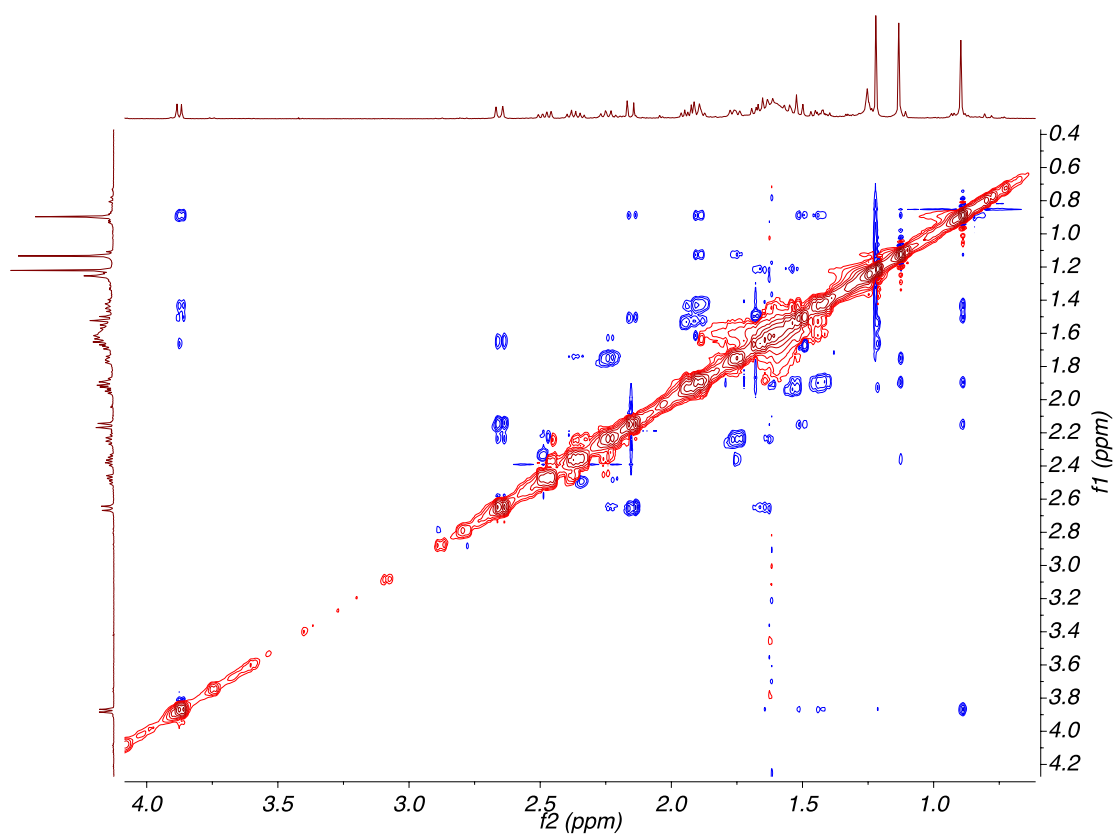
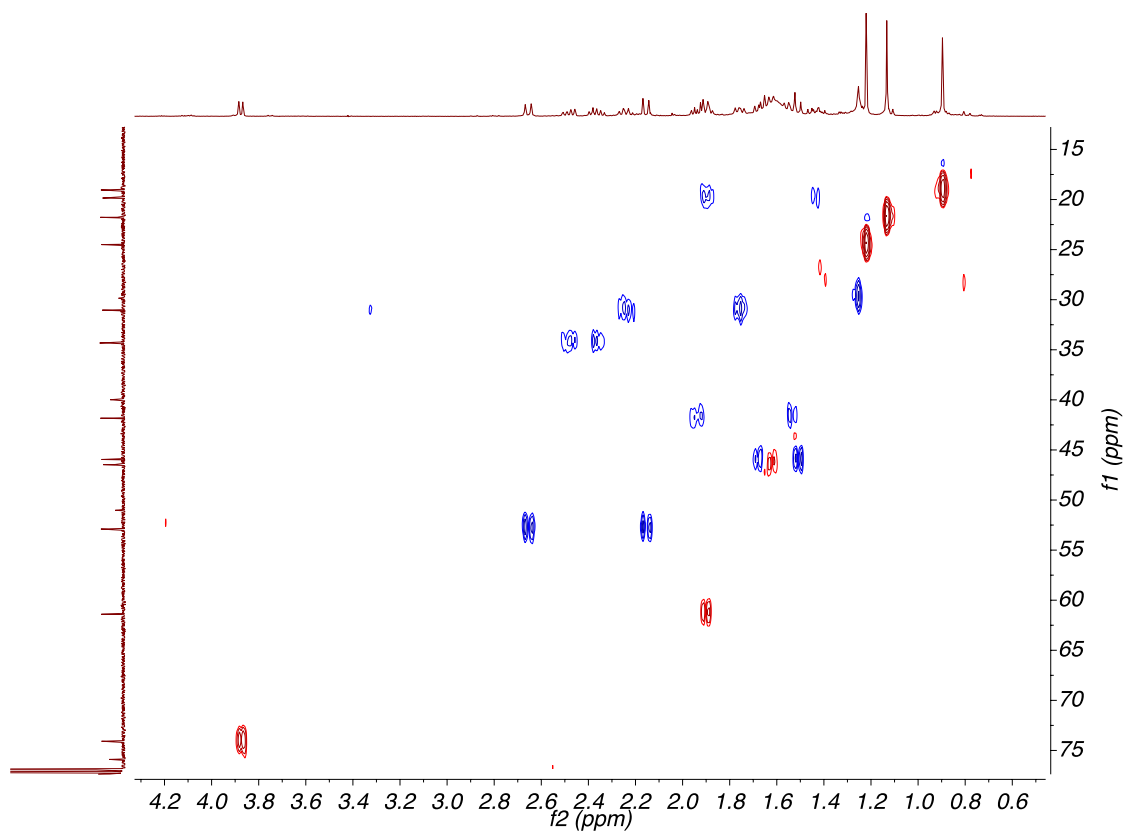
^1H NMR (600 MHz, CDCl_3) of compound **18**.

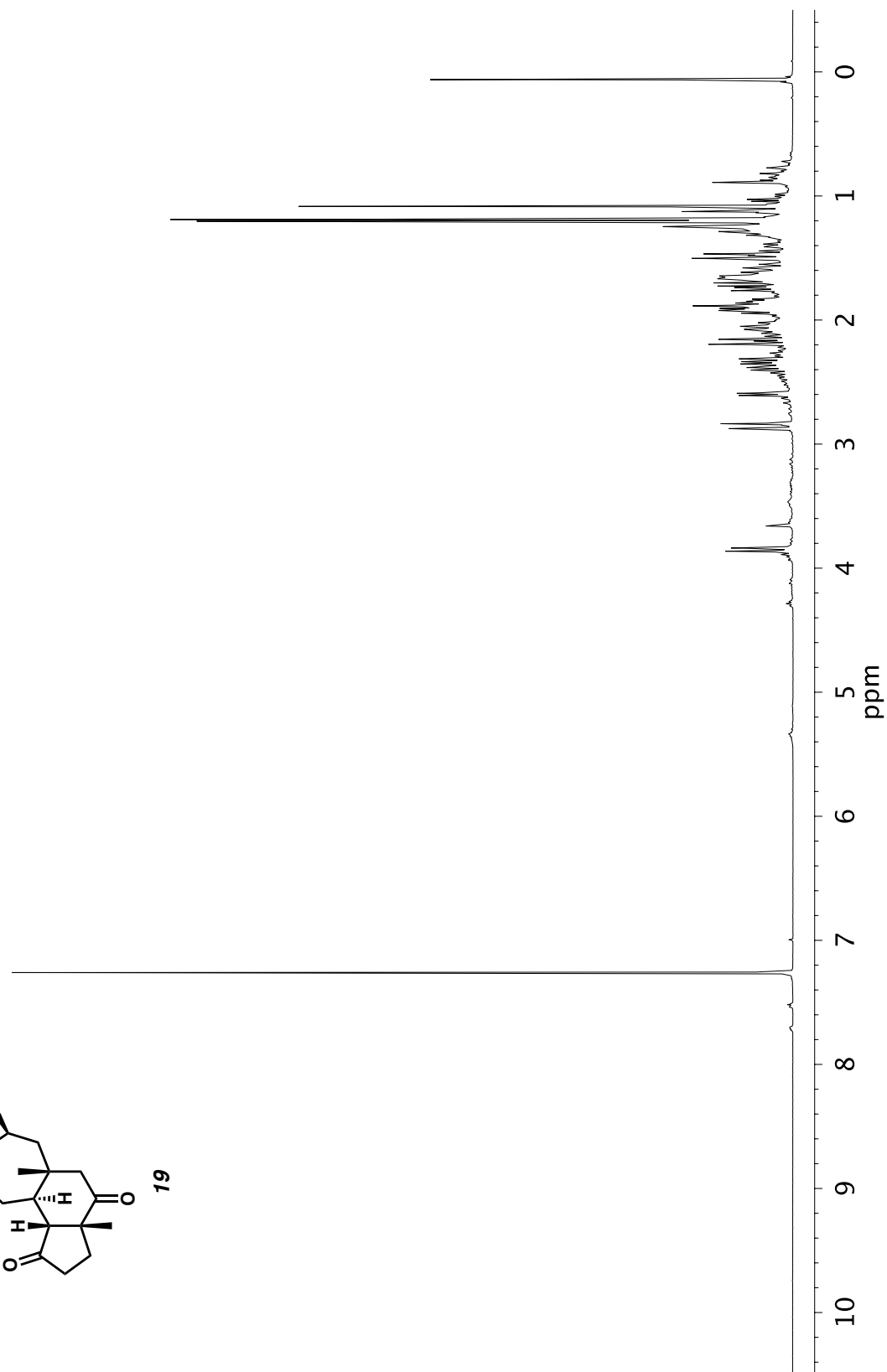
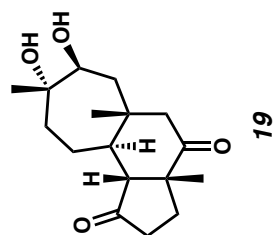


Infrared spectrum (Thin Film, KBr) of compound **18**.

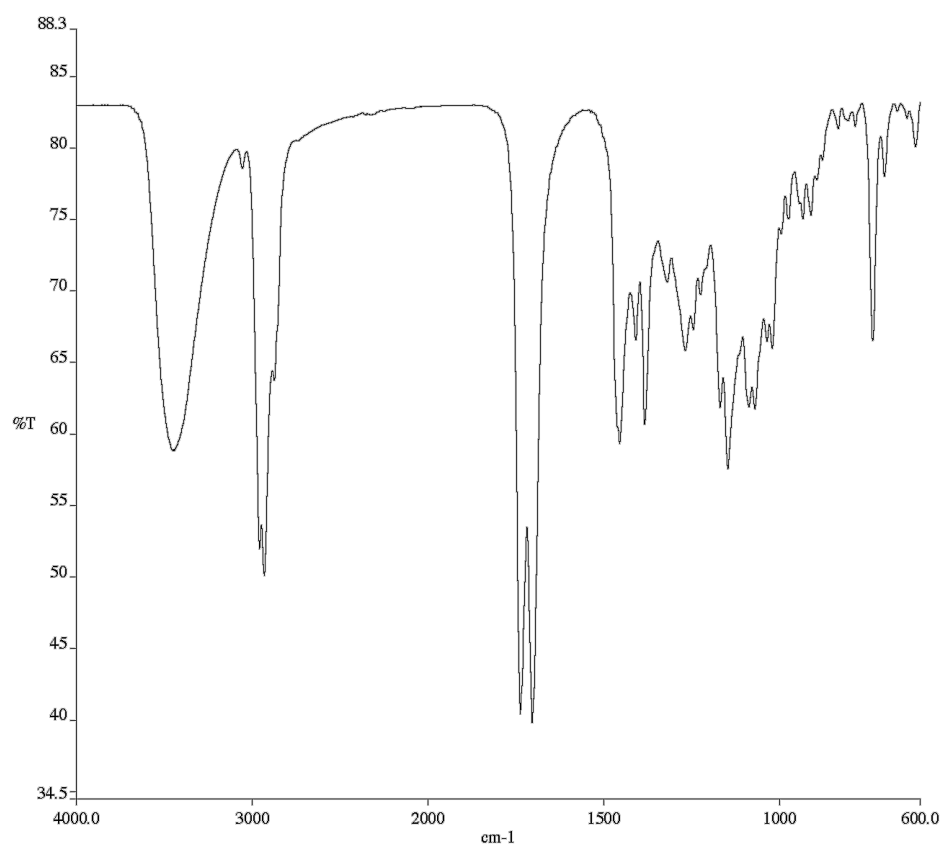


¹³C NMR (126 MHz, CDCl₃) of compound **18**.

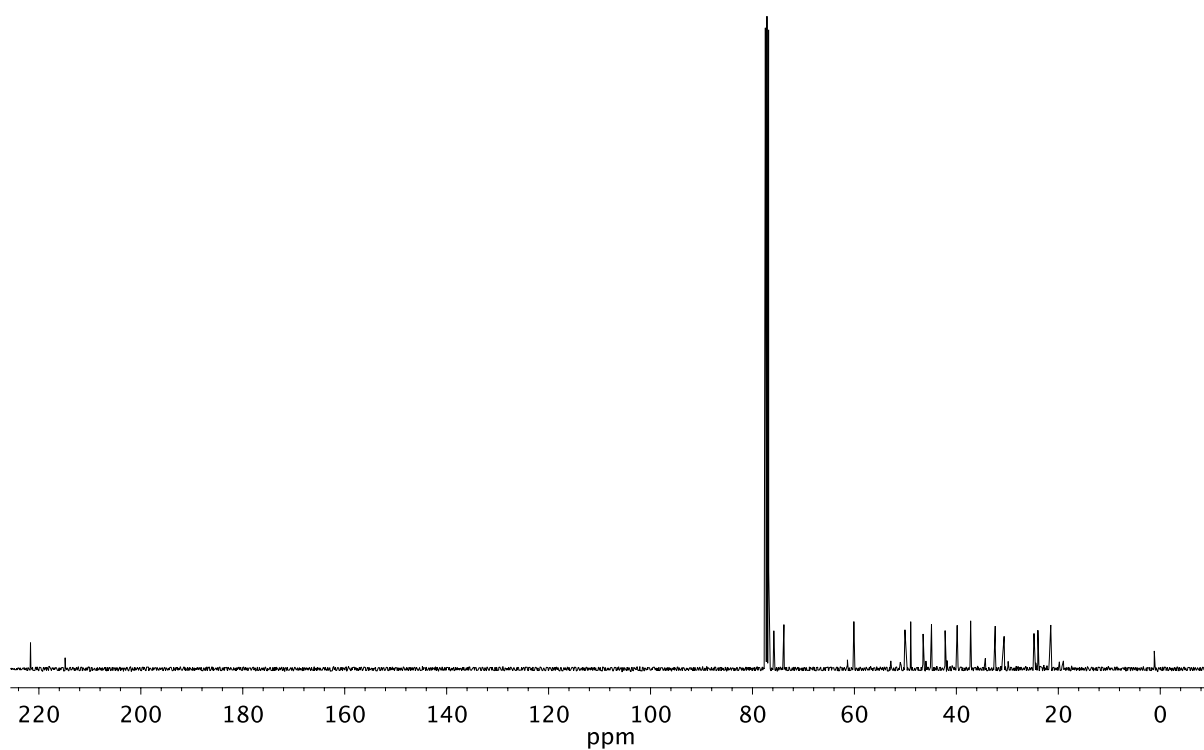




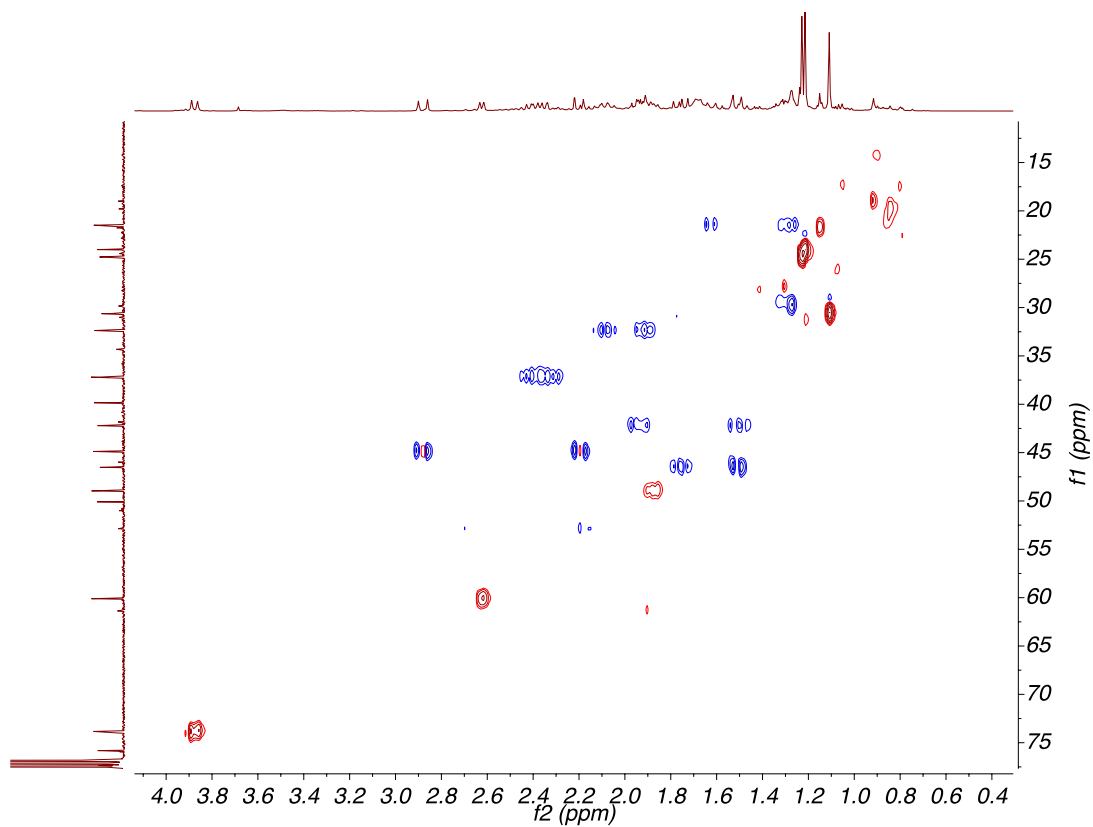
^1H NMR (400 MHz, CDCl_3) of compound **19**.



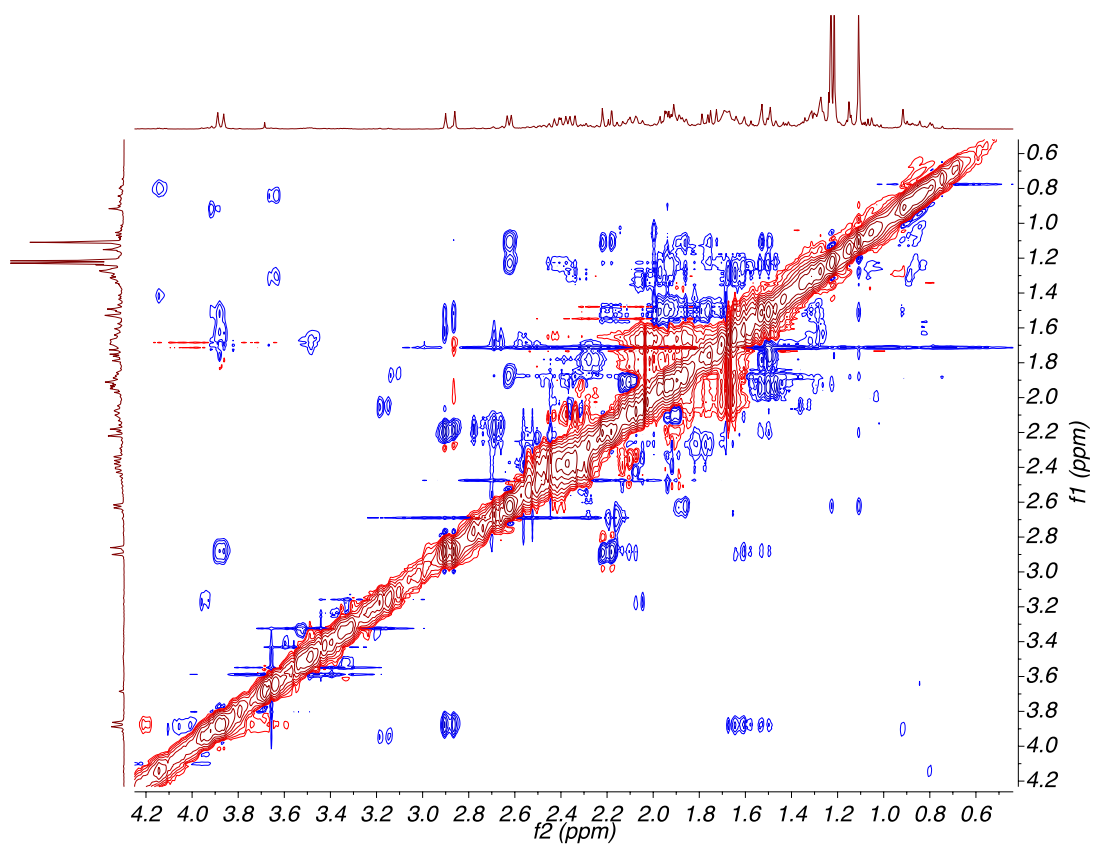
Infrared spectrum (Thin Film, KBr) of compound **19**.



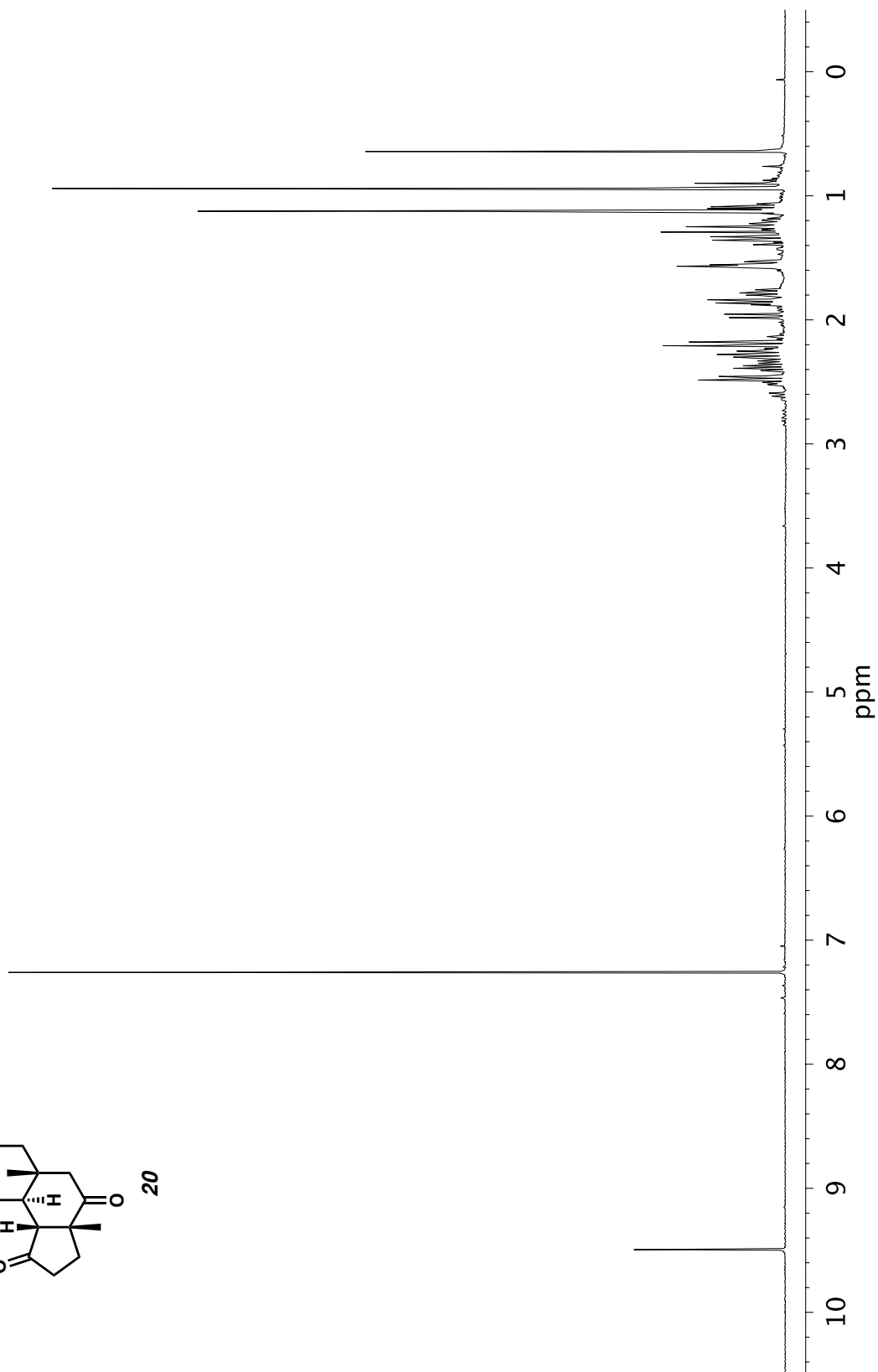
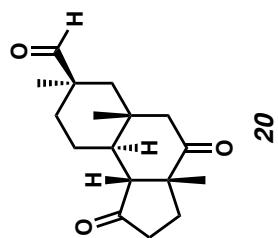
¹³C NMR (101 MHz, CDCl₃) of compound **19**.



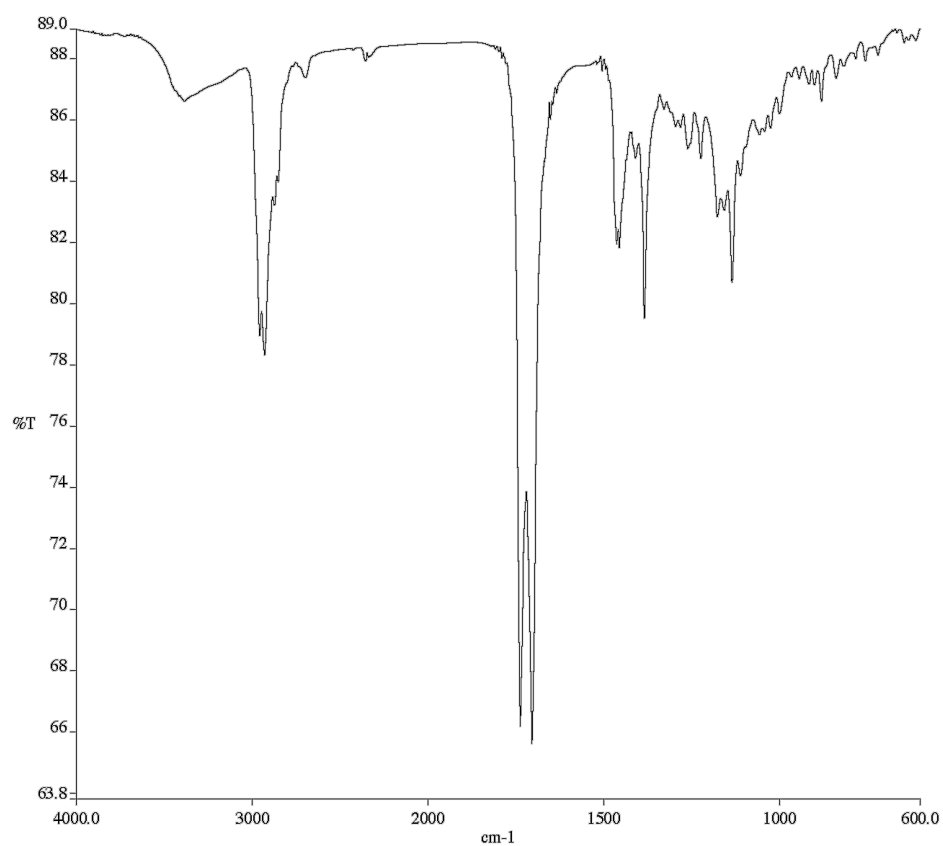
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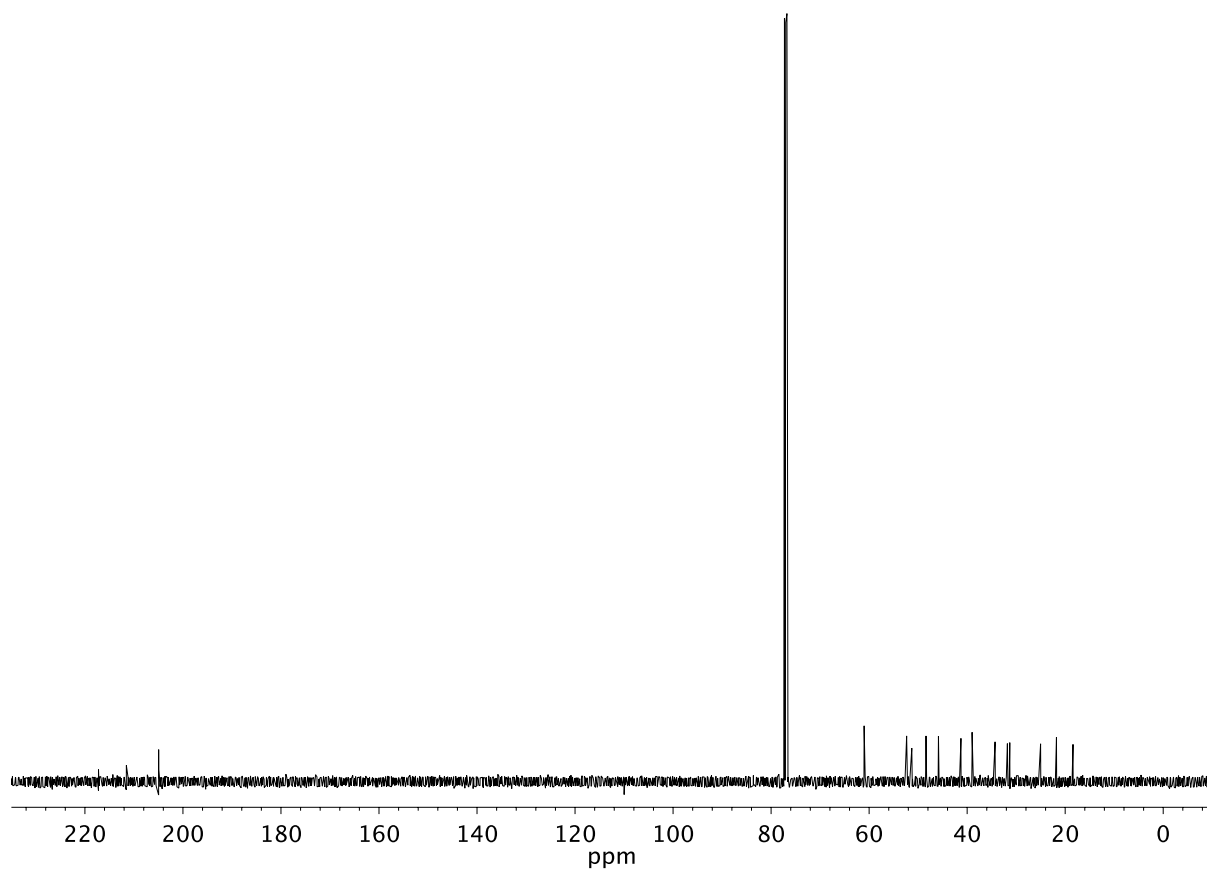
NOESY (400 MHz, CDCl_3) of compound **19**.



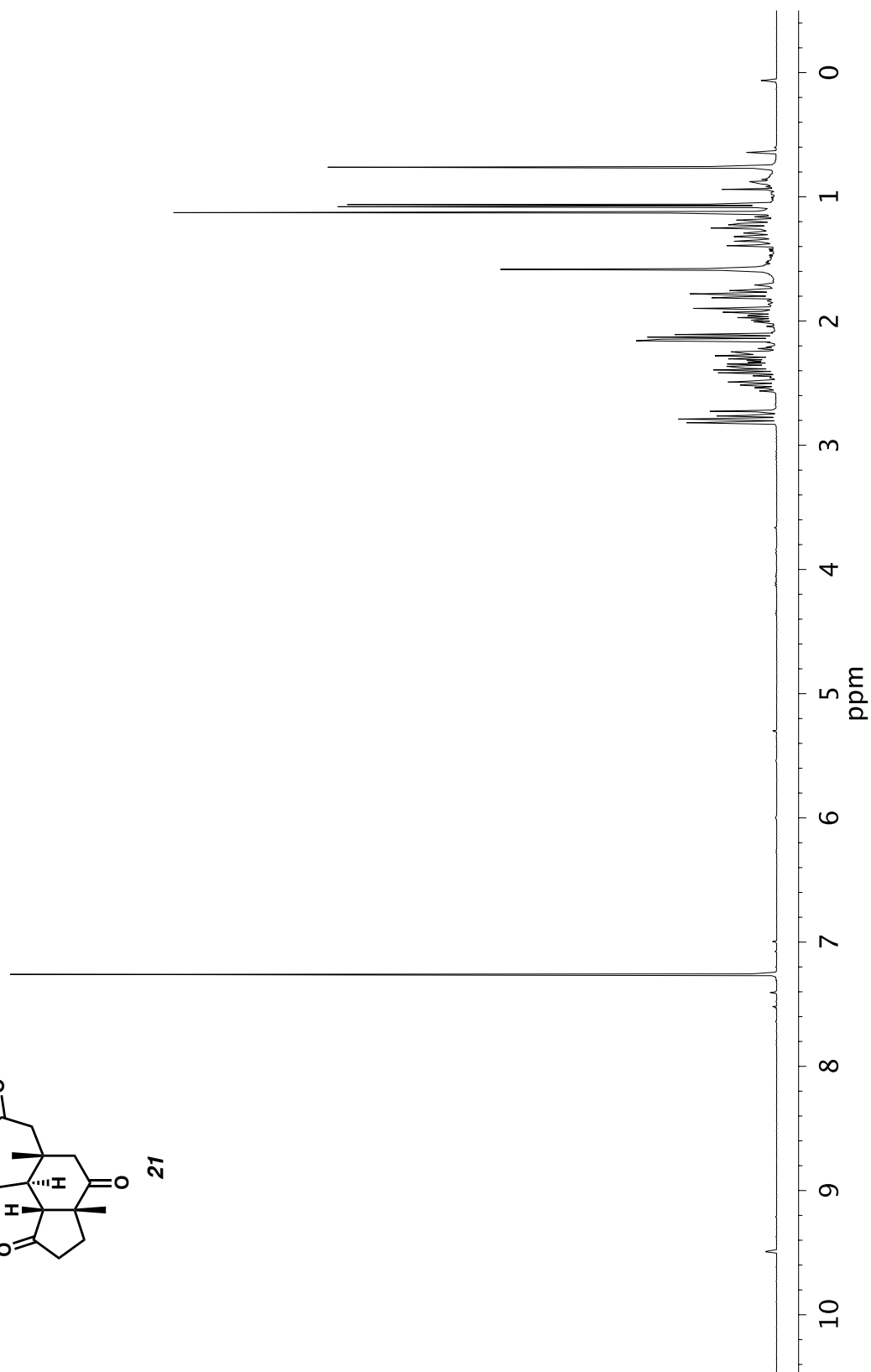
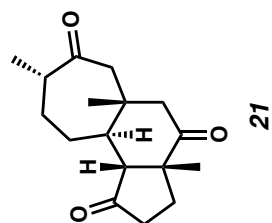
^1H NMR (500 MHz, CDCl_3) of compound **20**.



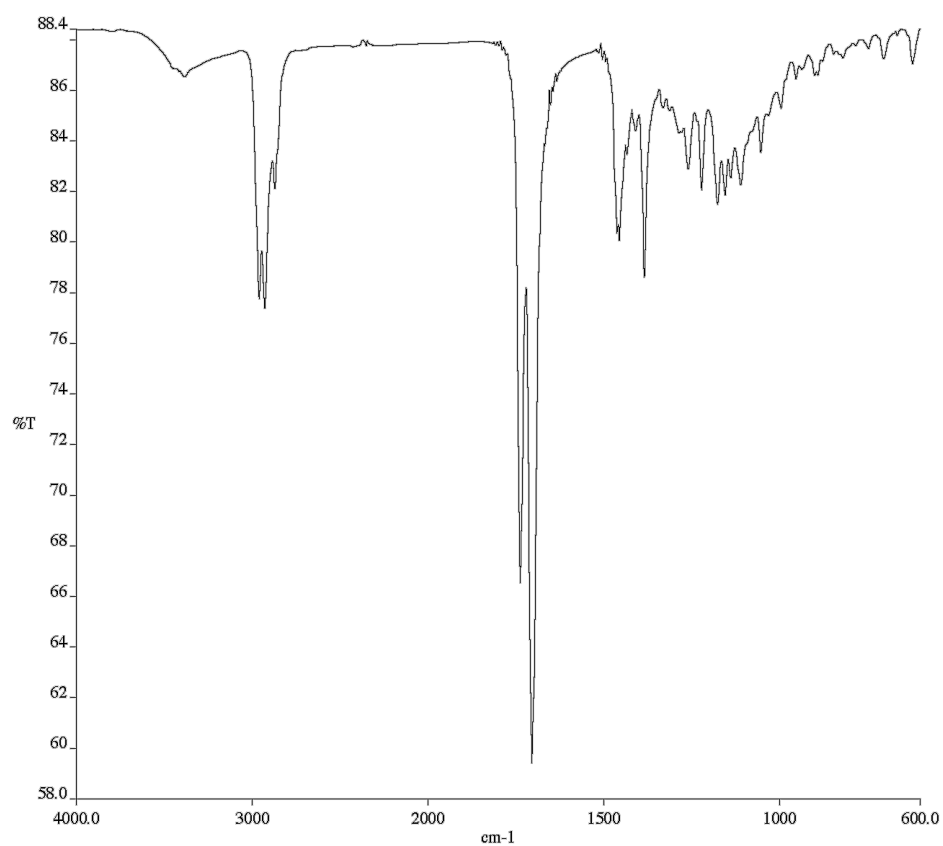
Infrared spectrum (Thin Film, KBr) of compound **20**.



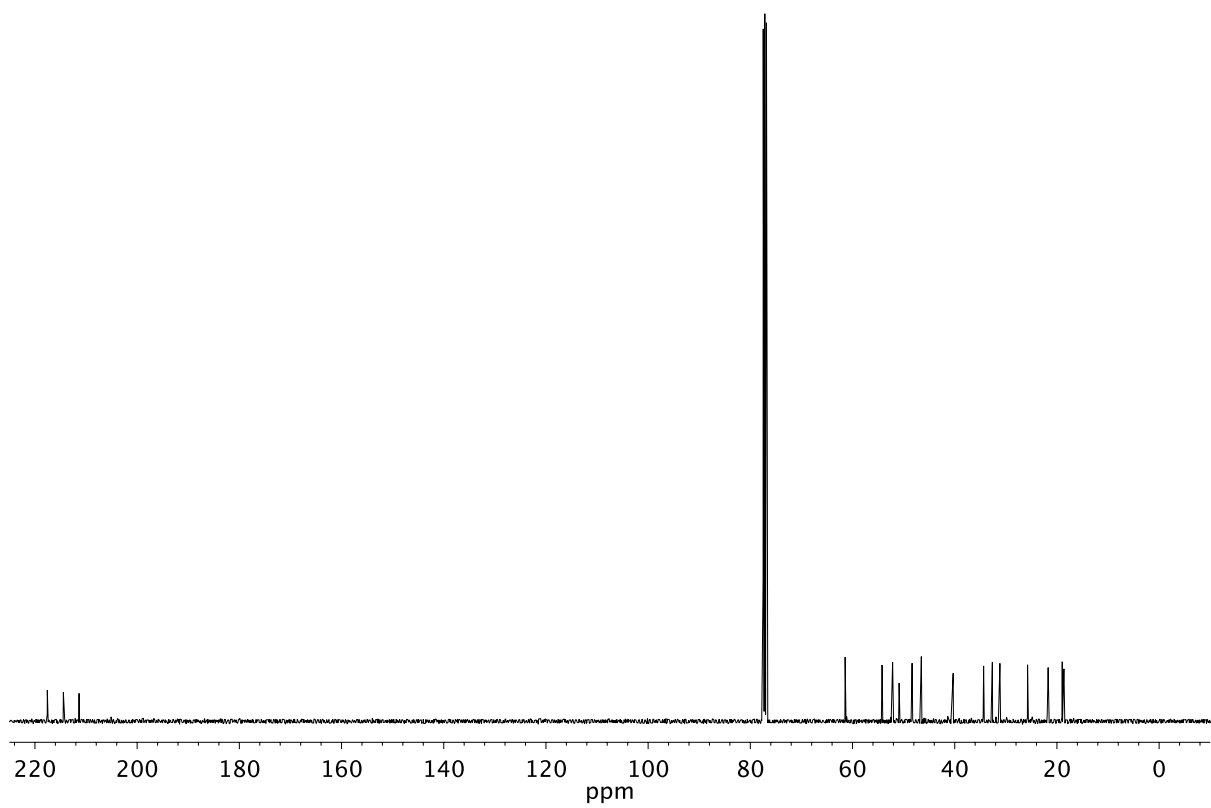
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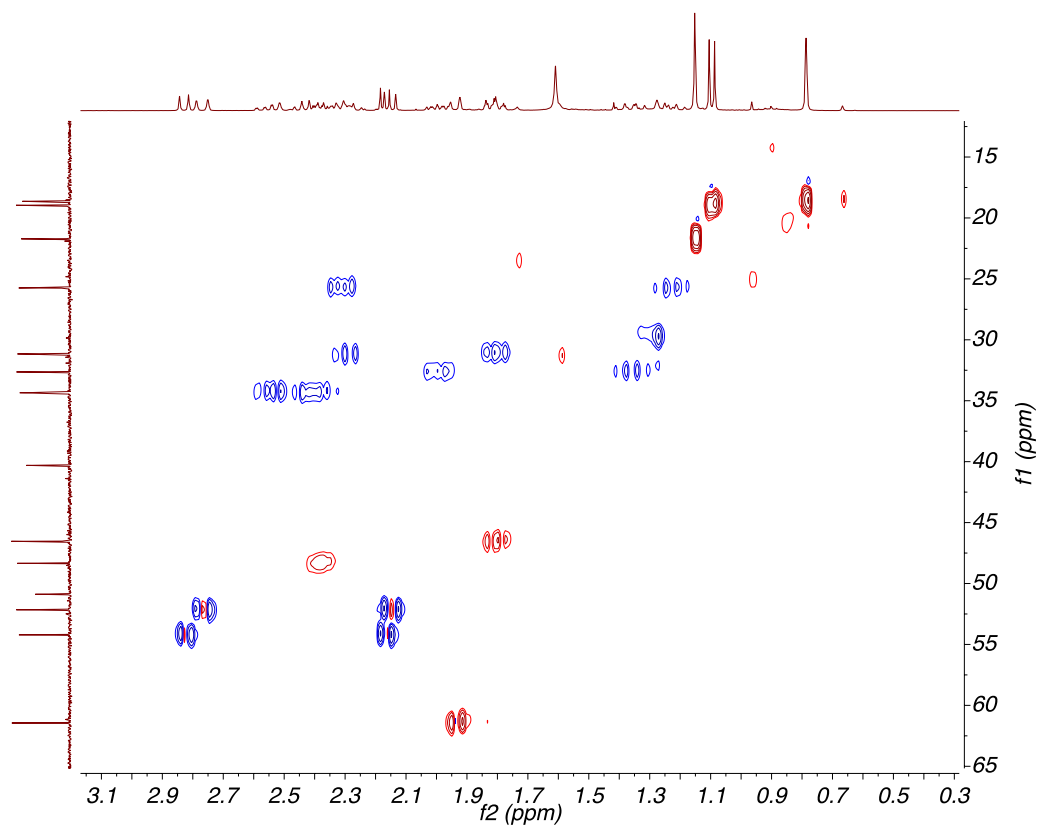
^1H NMR (400 MHz, CDCl_3) of compound **21**.



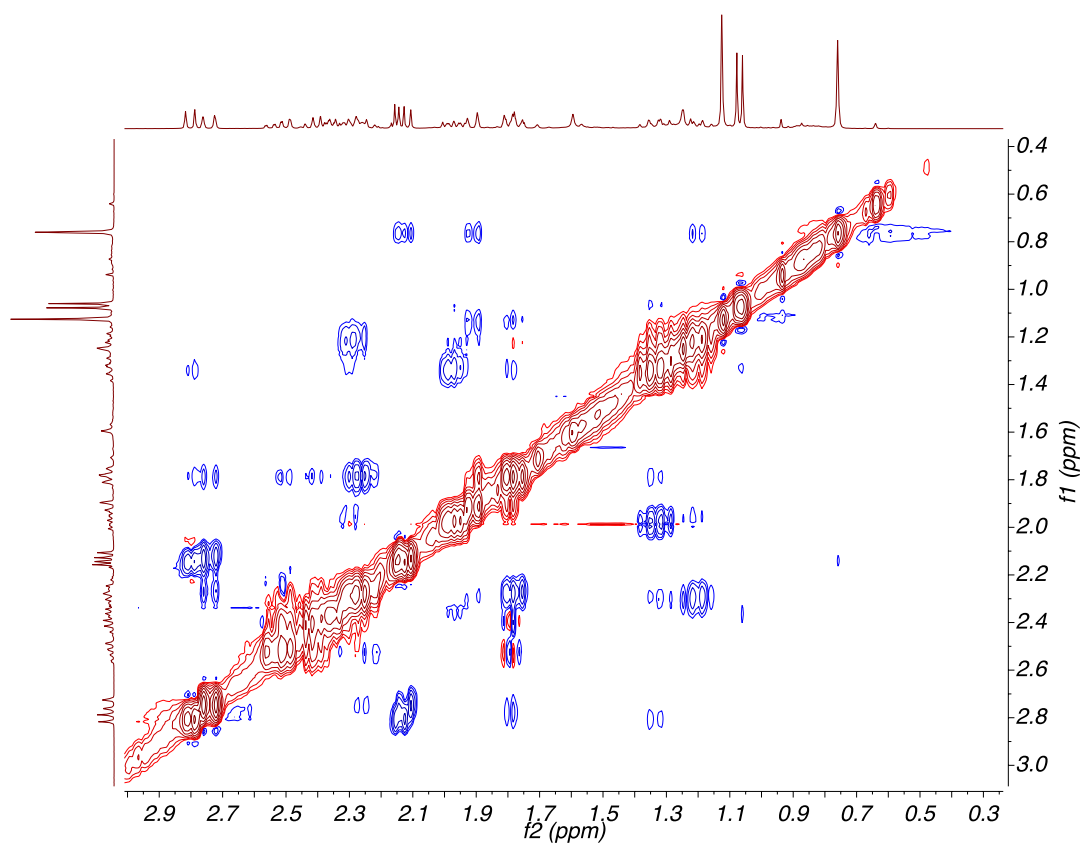
Infrared spectrum (Thin Film, KBr) of compound **21**.



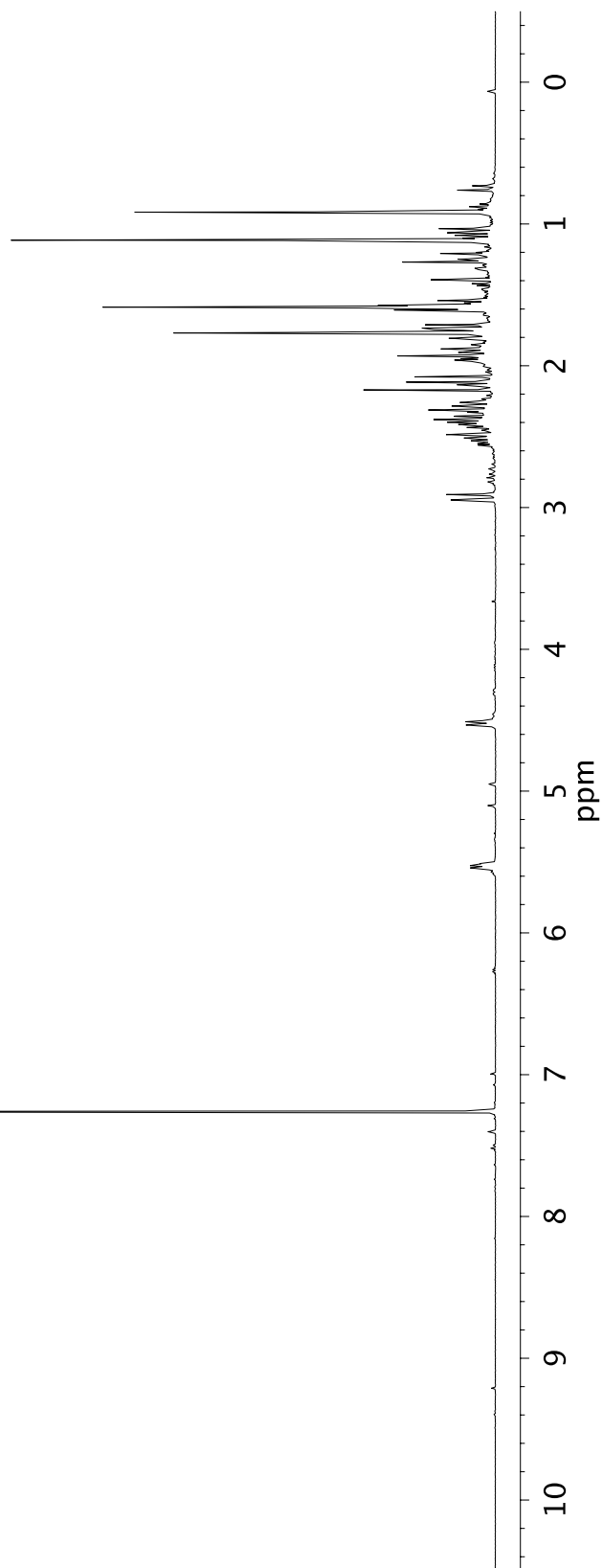
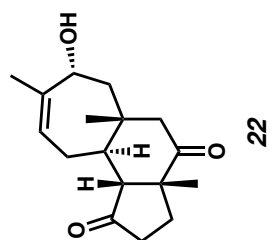
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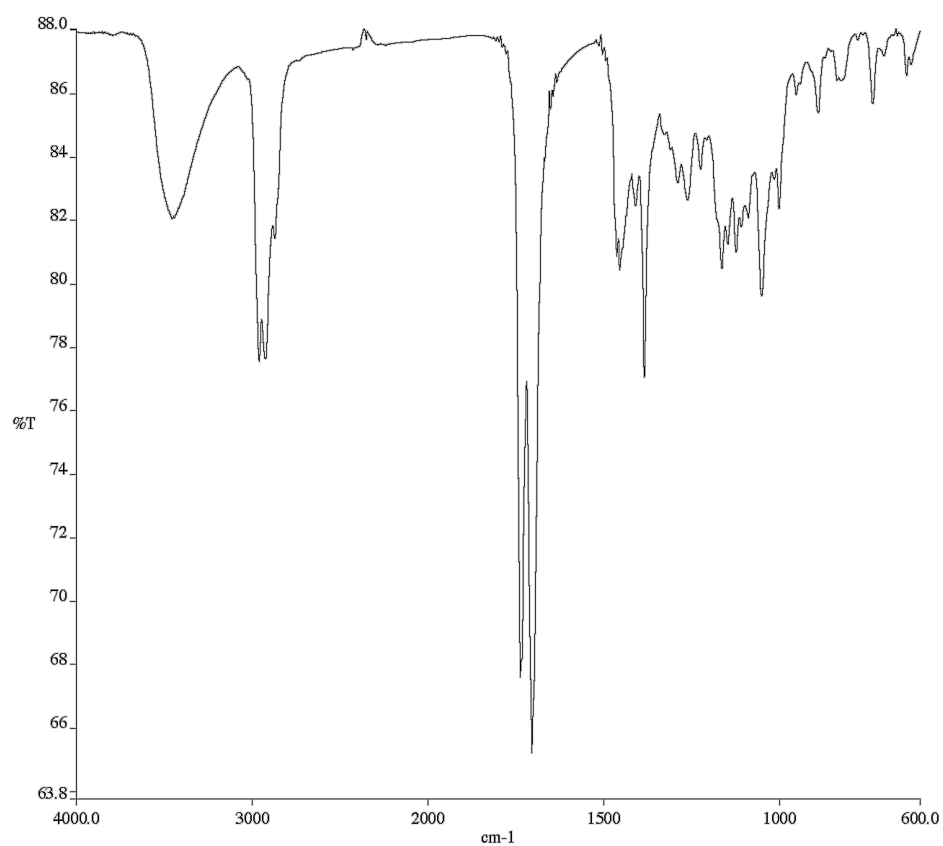
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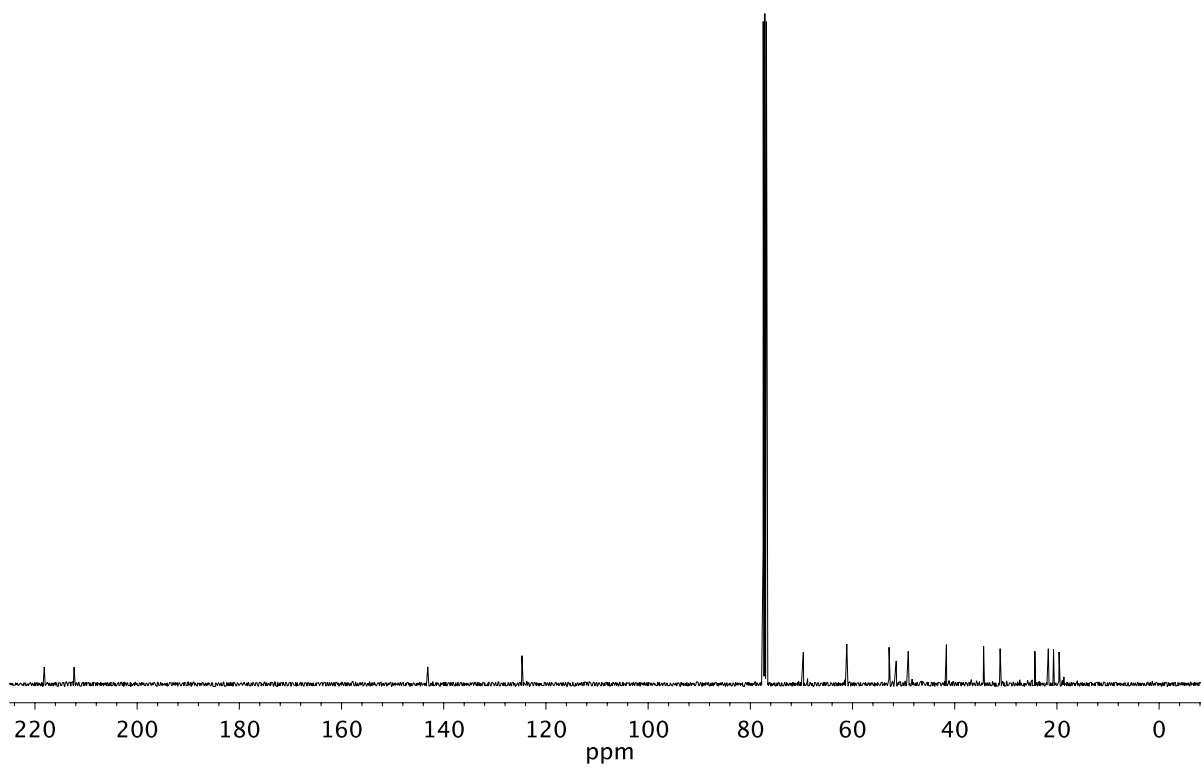
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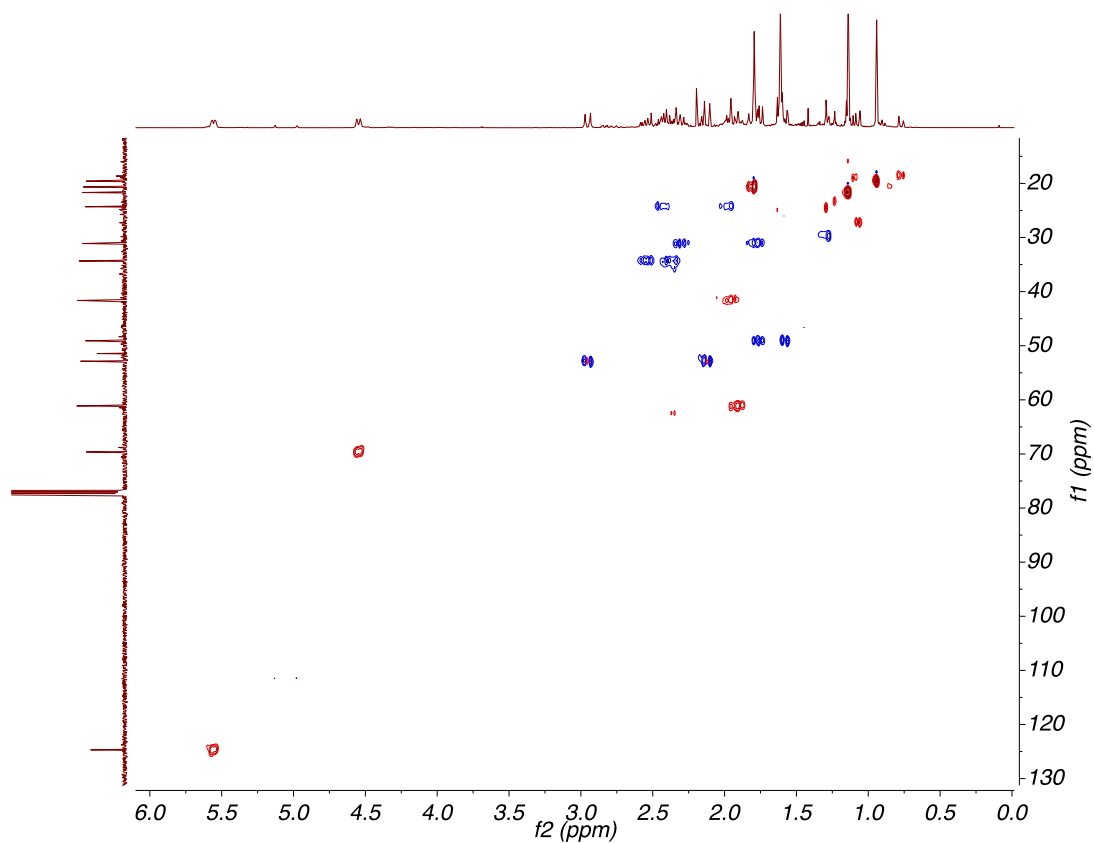
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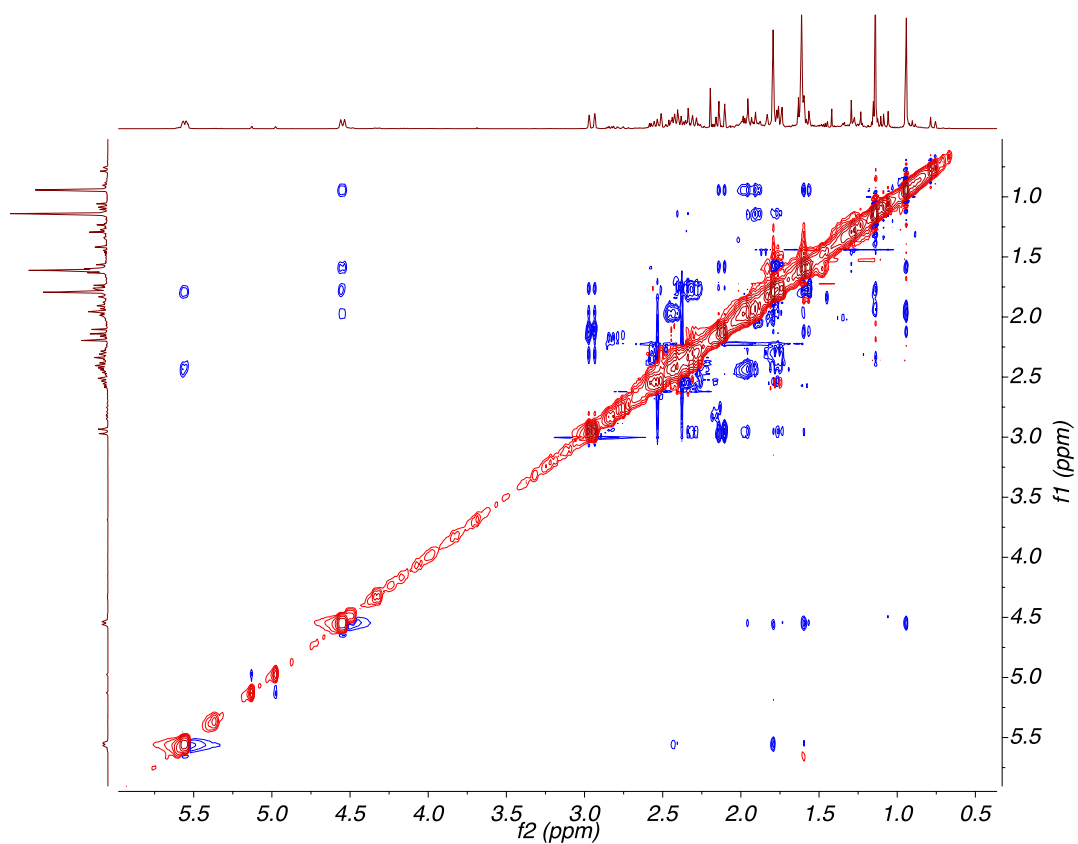
Infrared spectrum (Thin Film, KBr) of compound **22**.



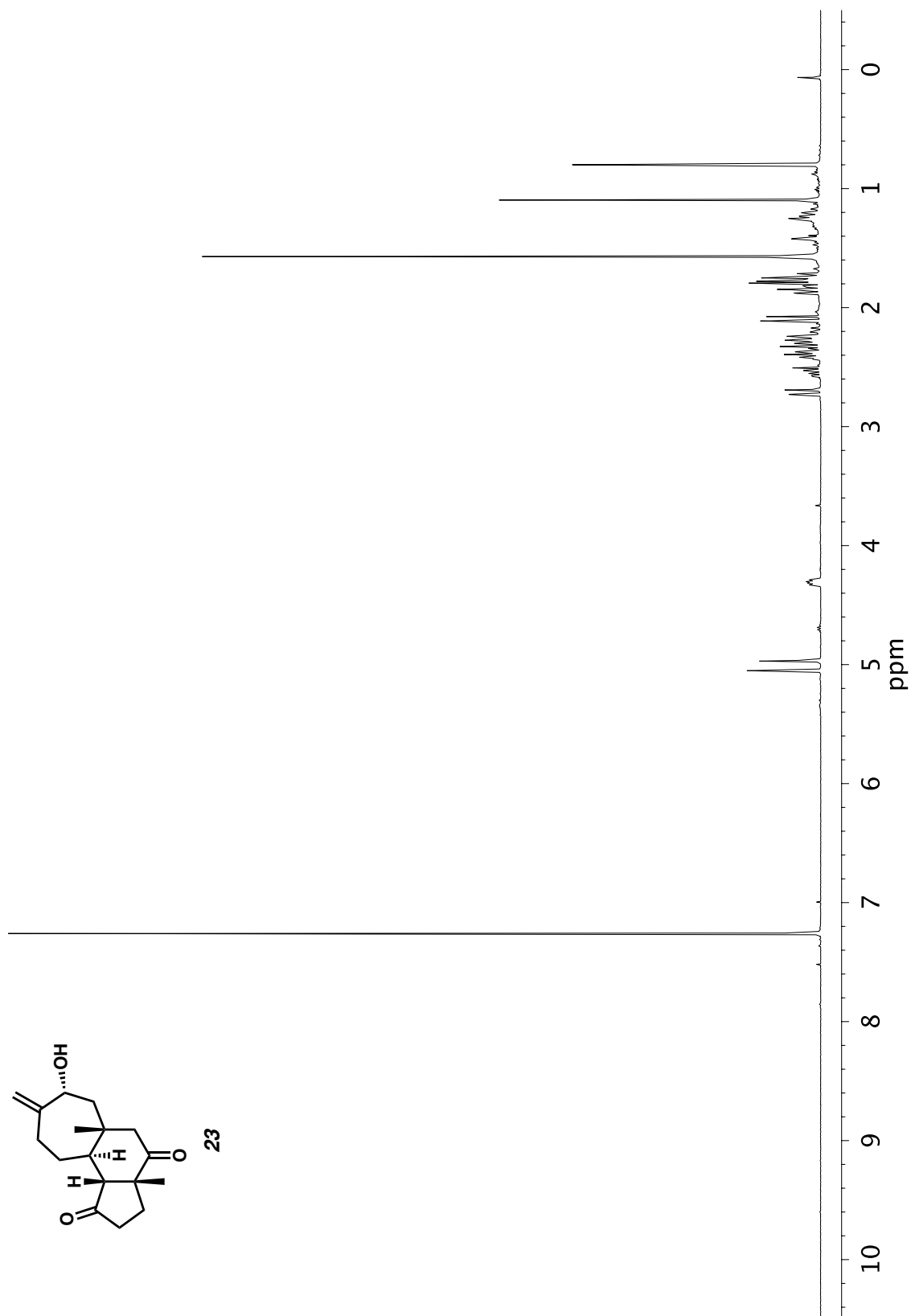
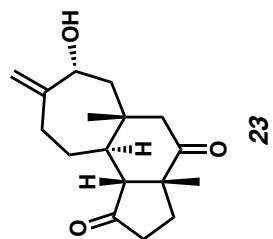
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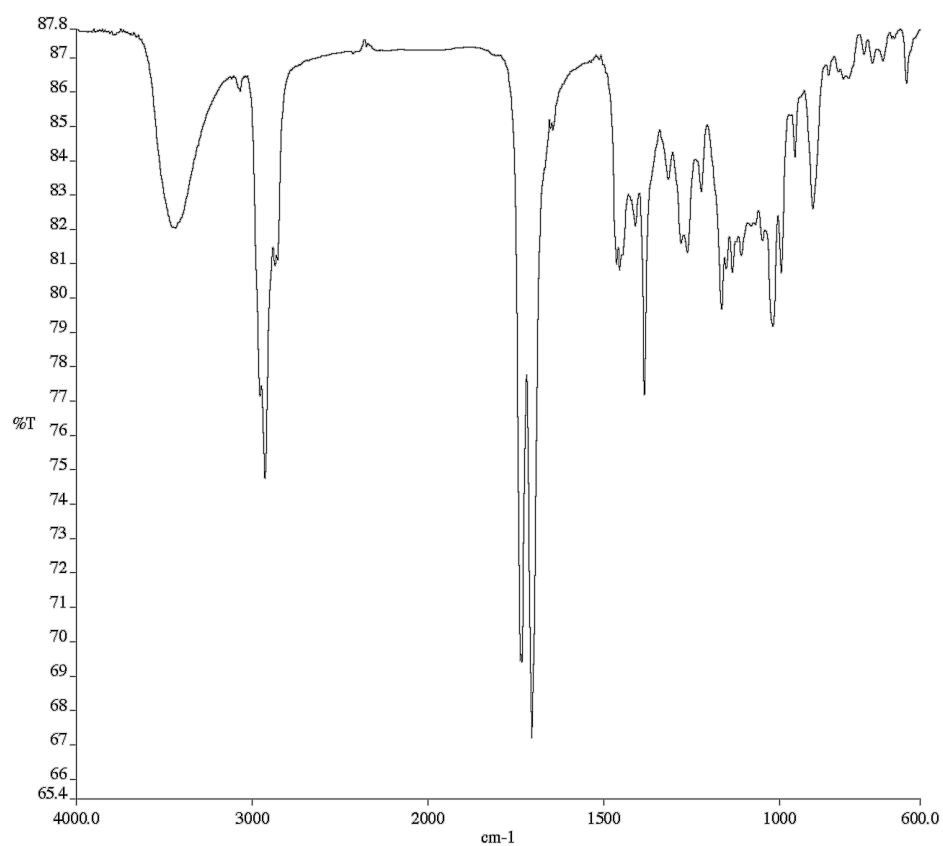
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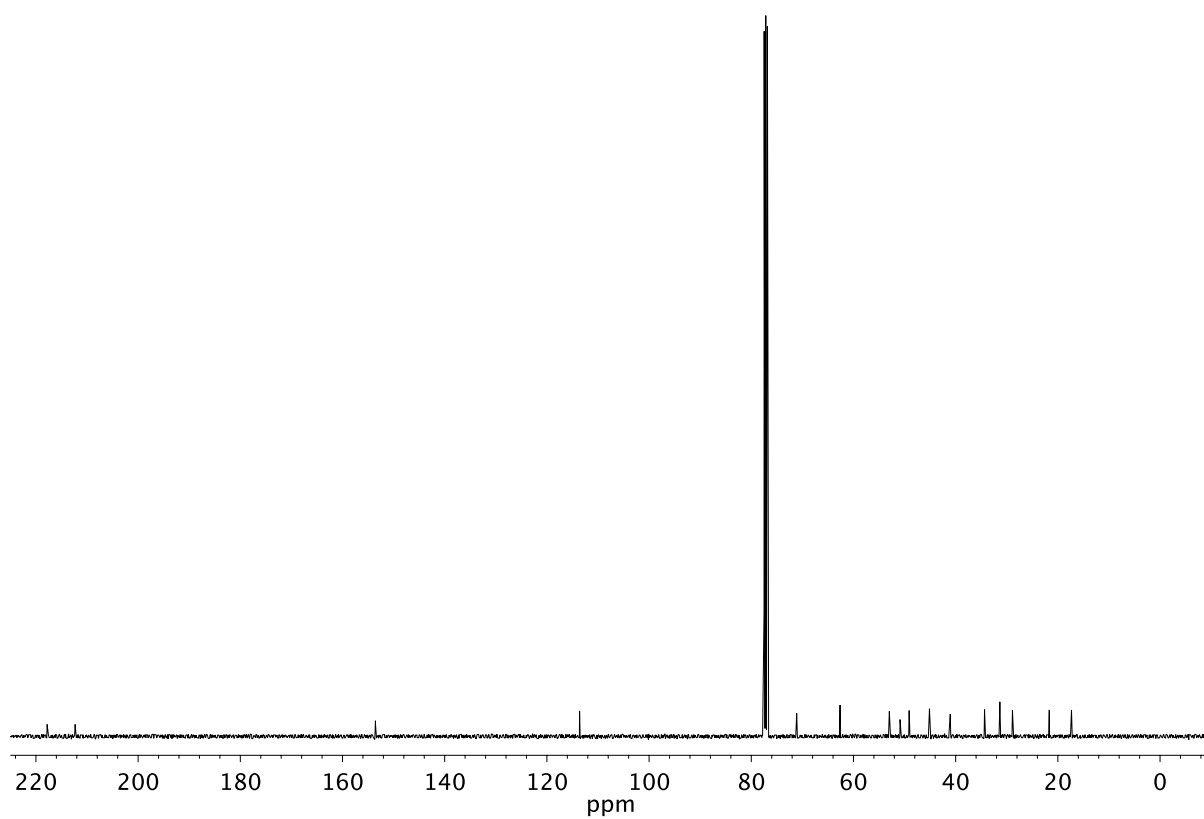
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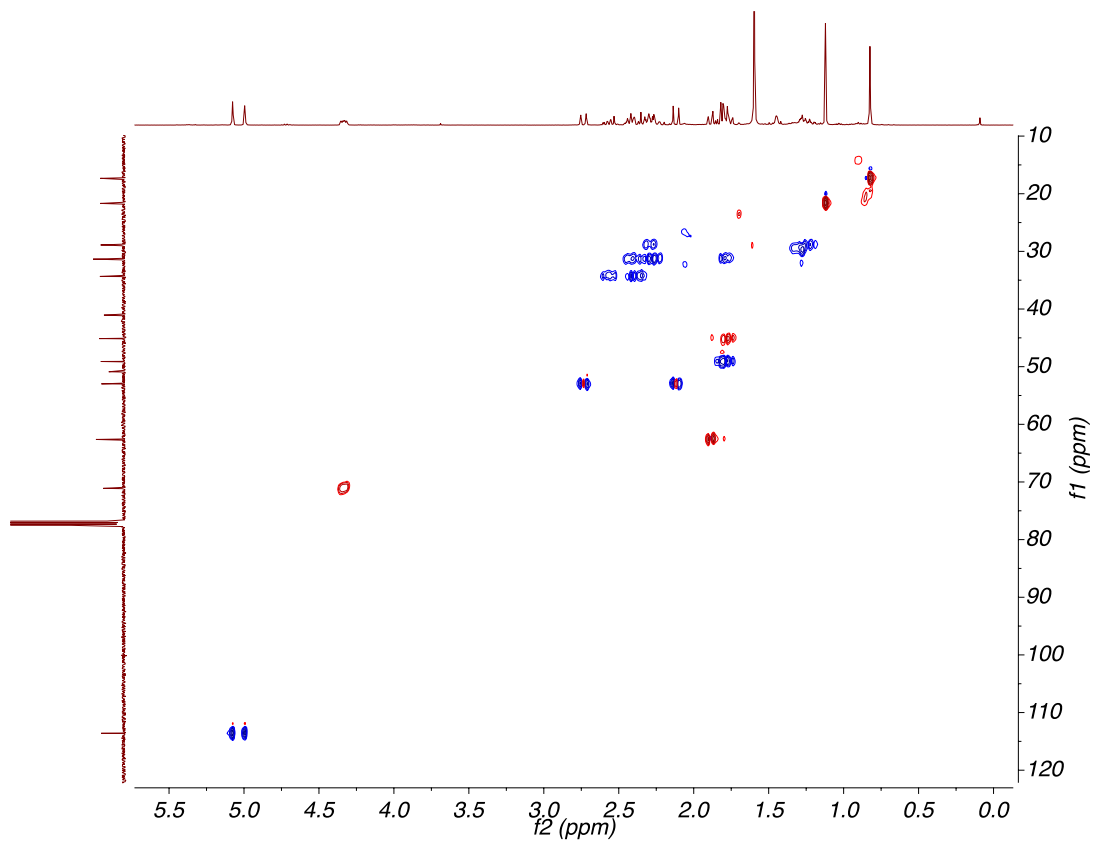
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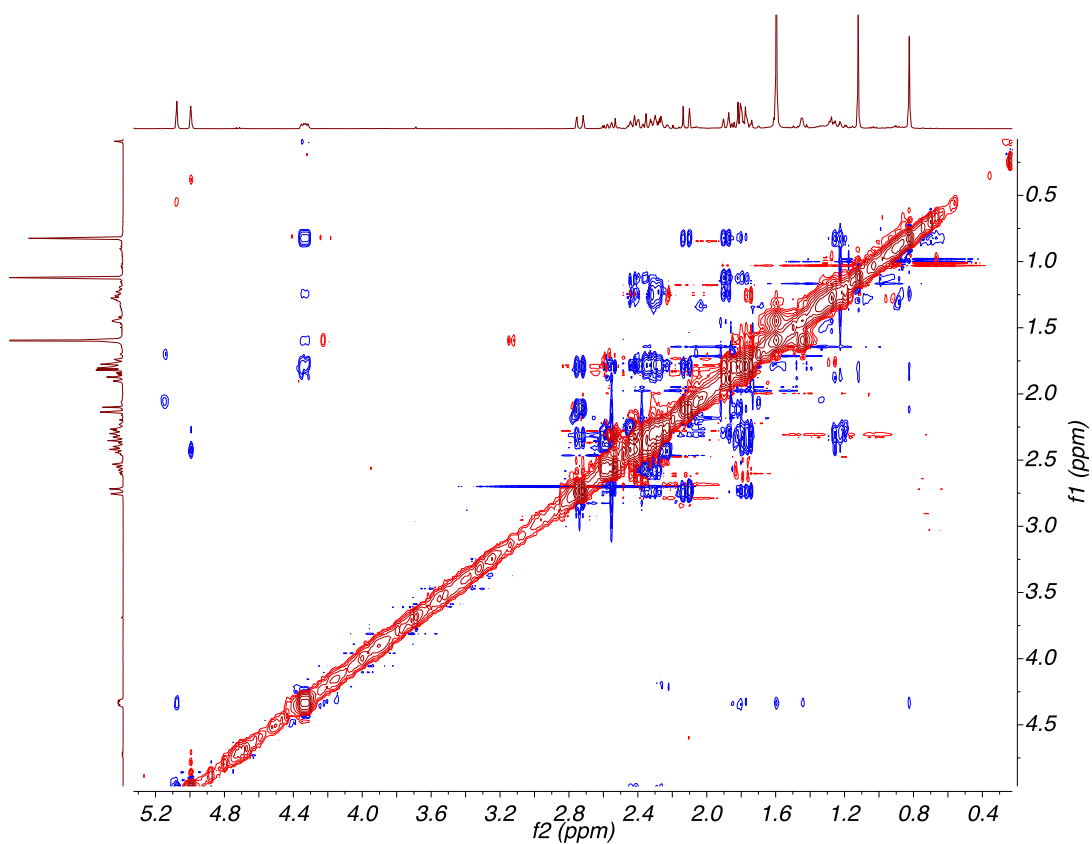
Infrared spectrum (Thin Film, KBr) of compound **23**.



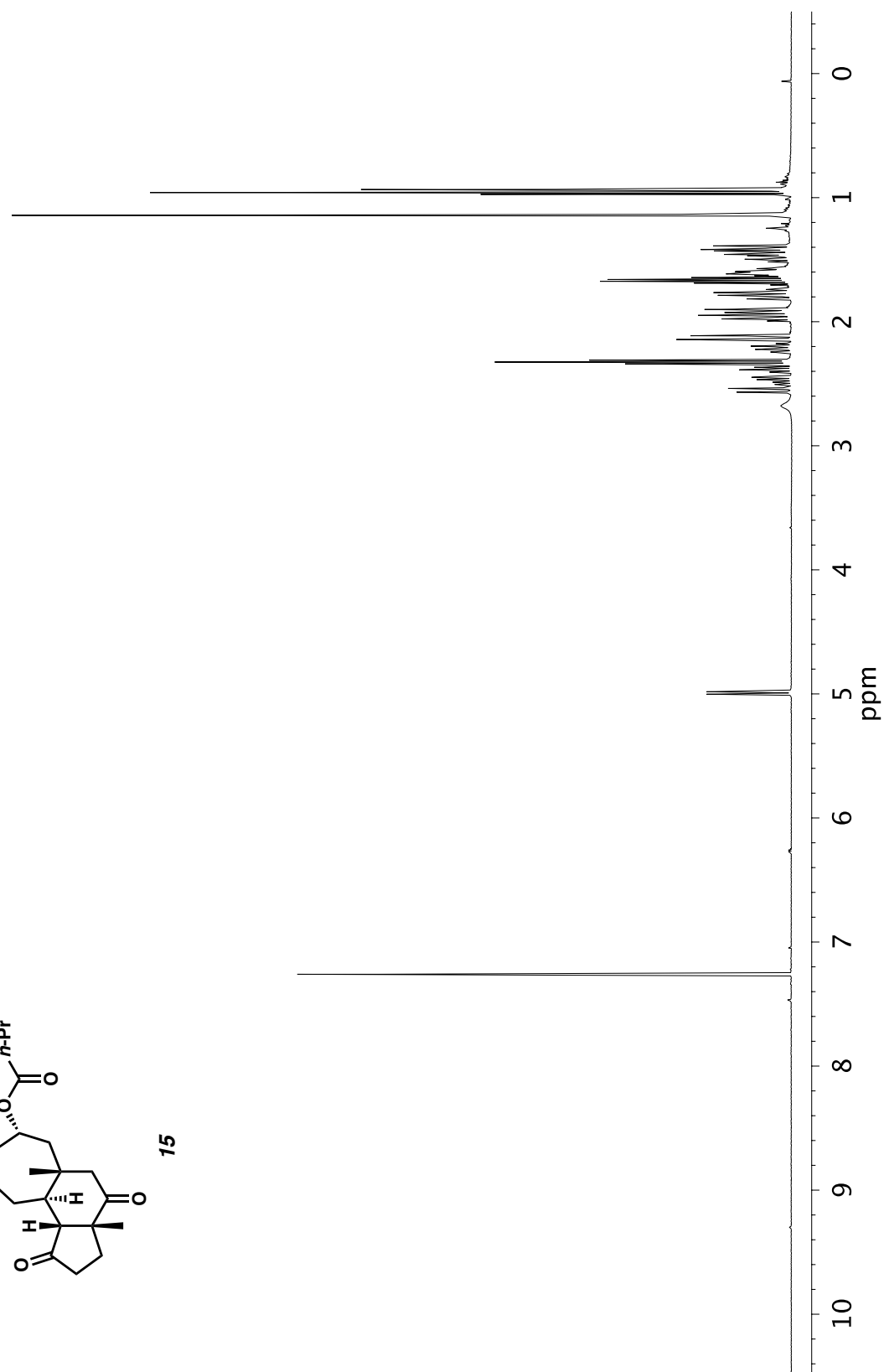
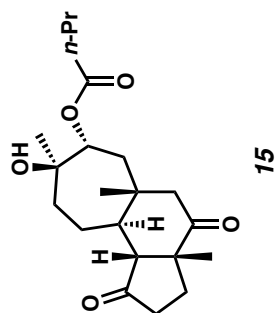
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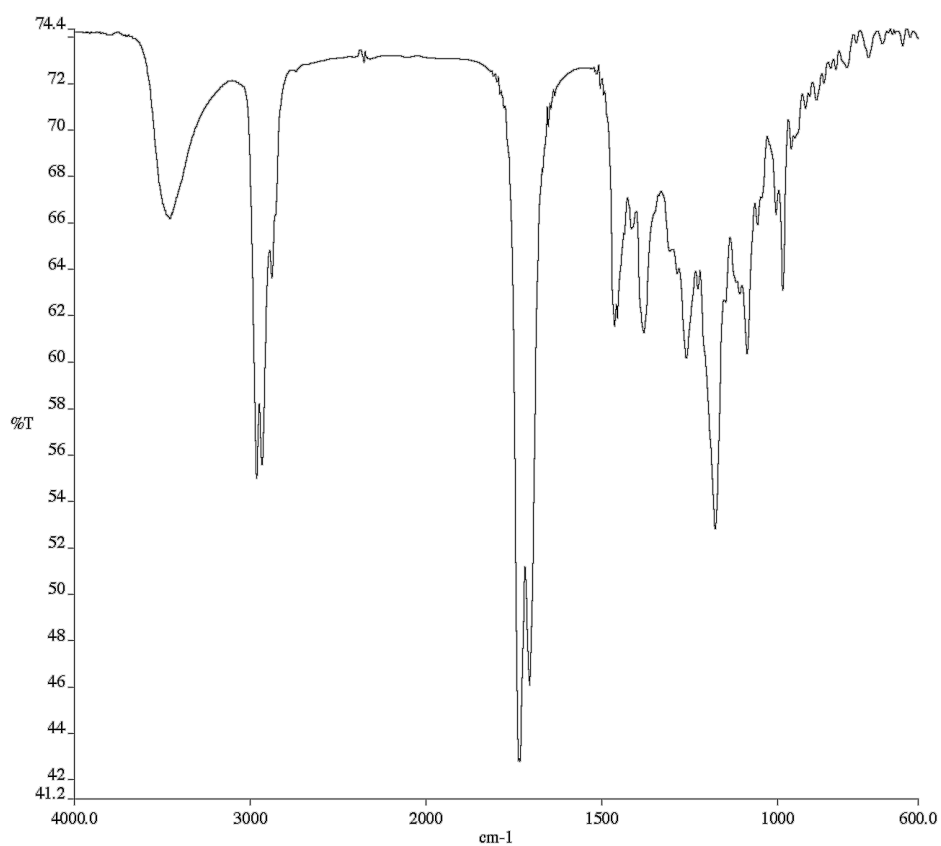
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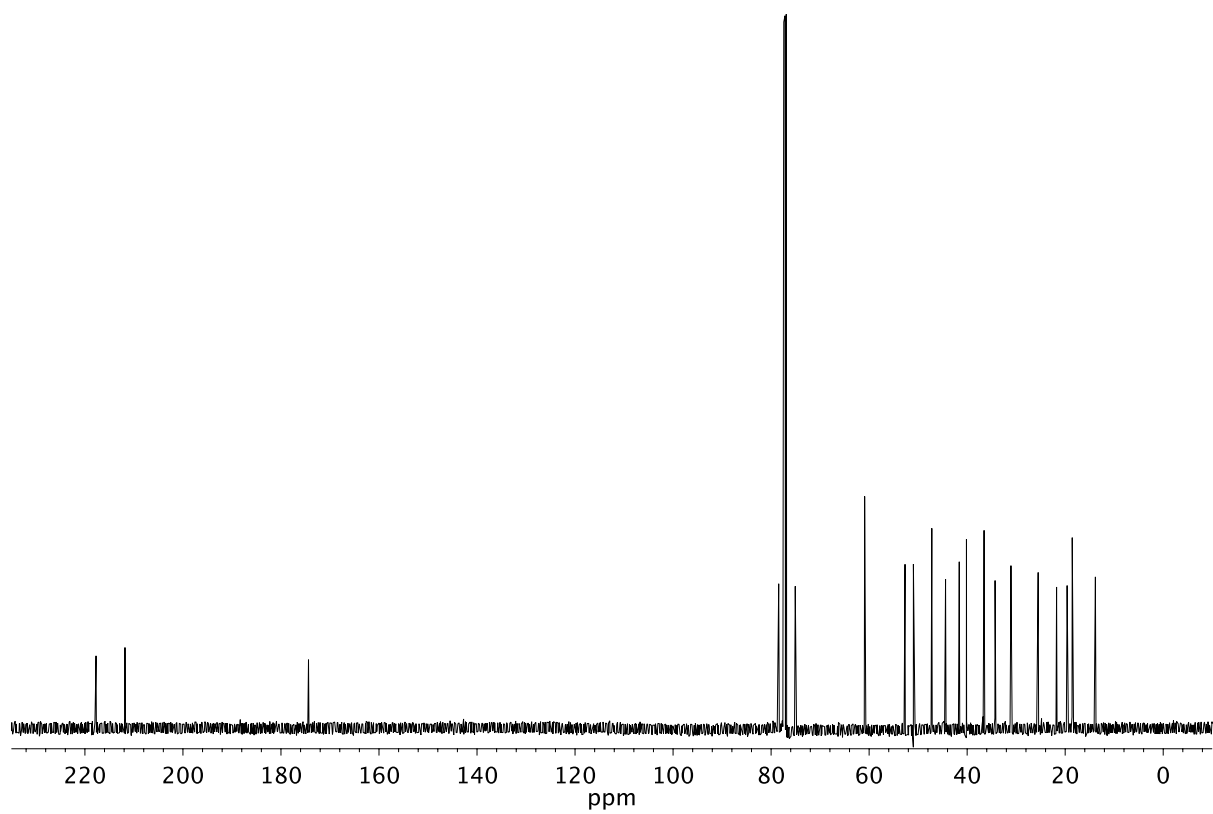
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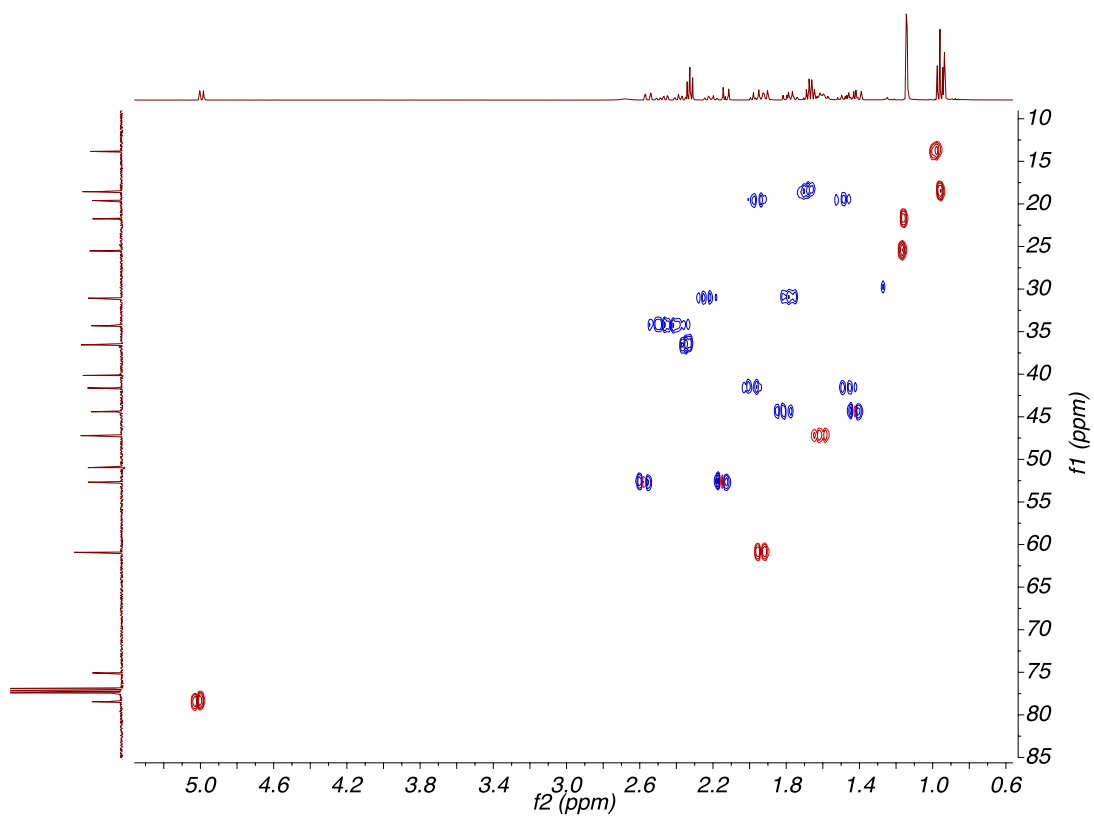
¹H NMR (500 MHz, CDCl₃) of compound **15**.



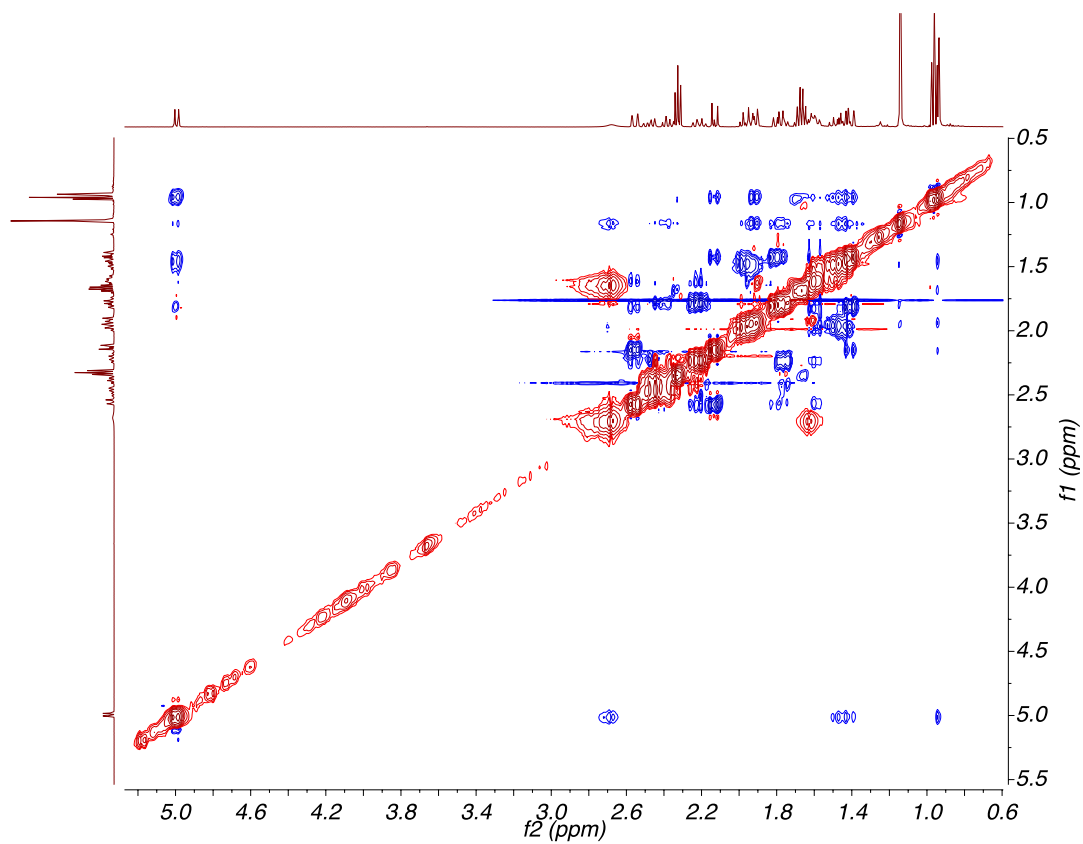
Infrared spectrum (Thin Film, KBr) of compound **15**.



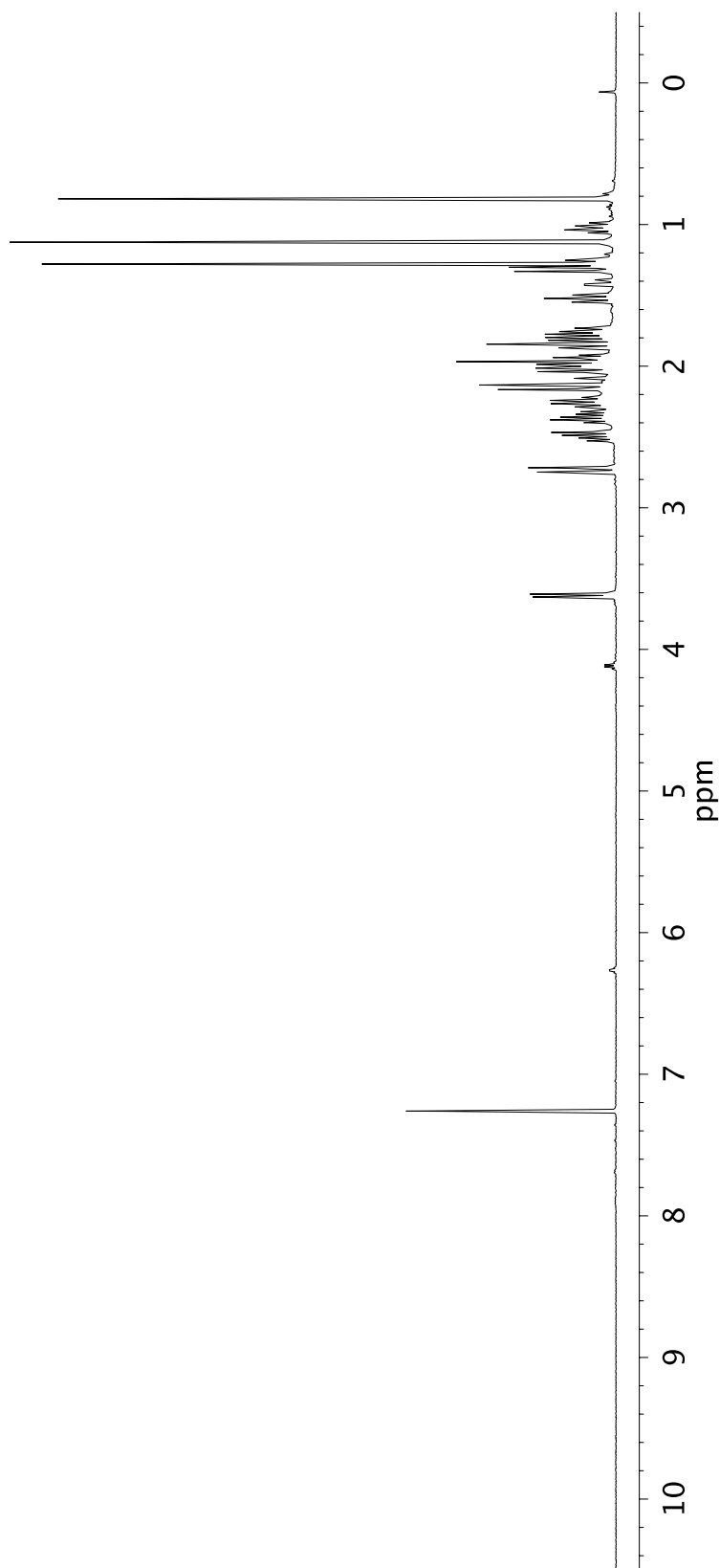
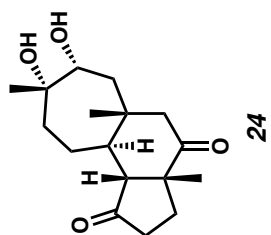
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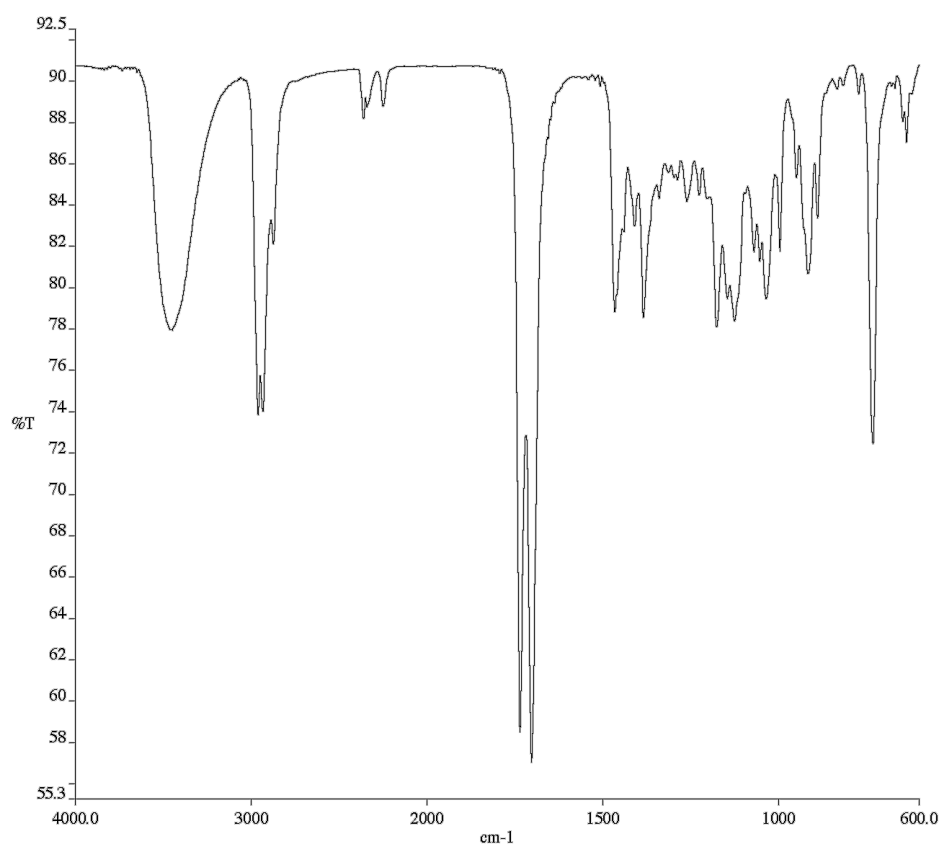
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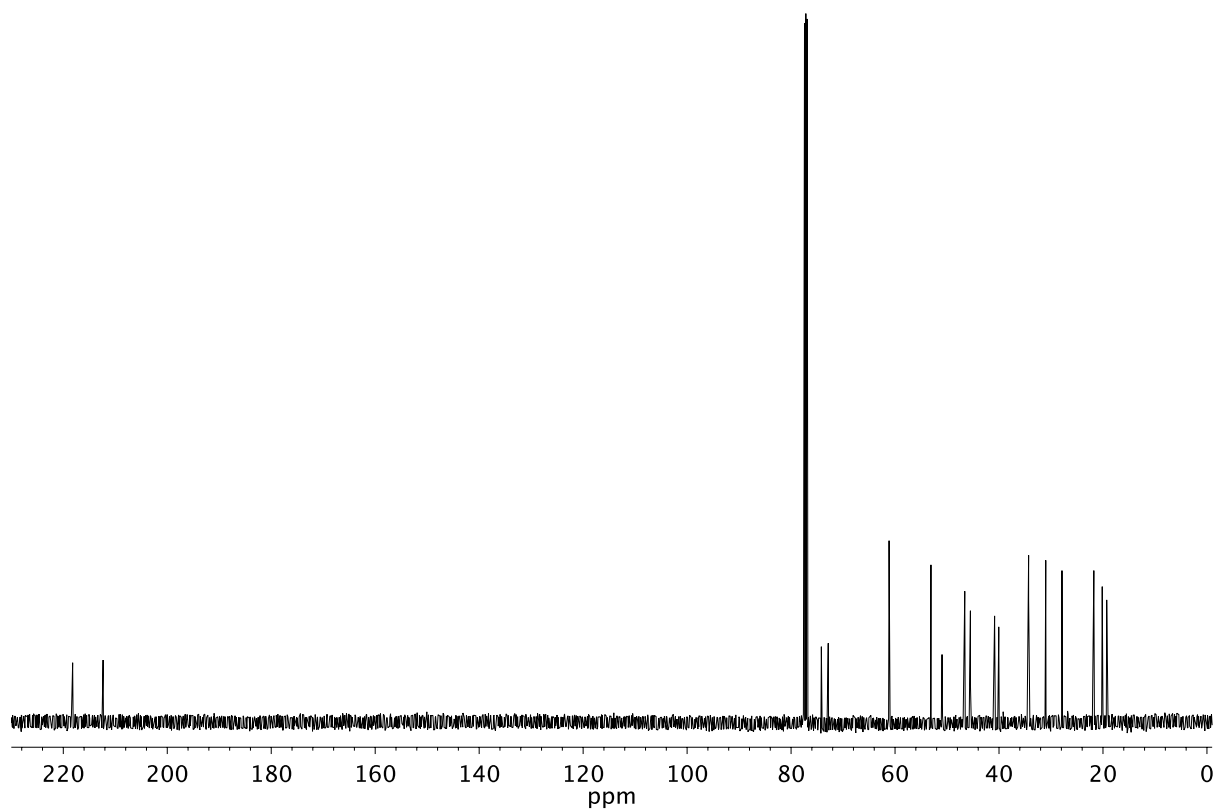
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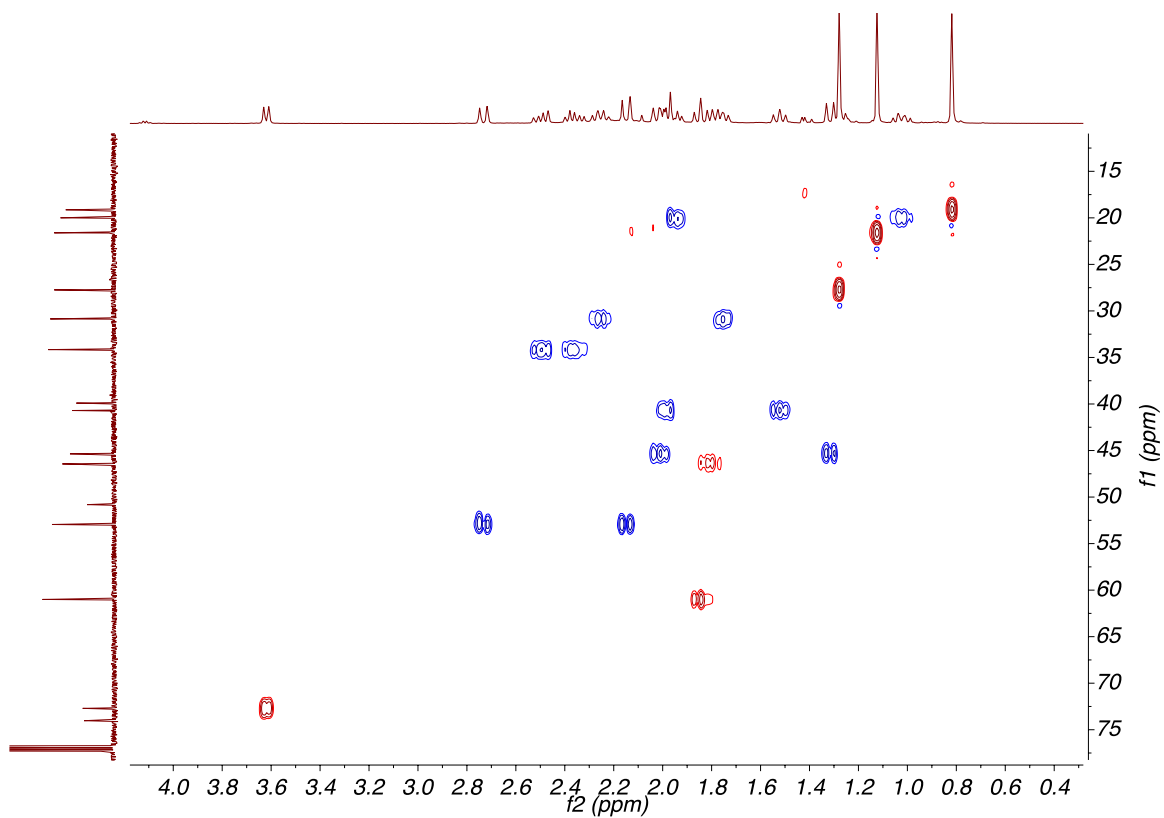
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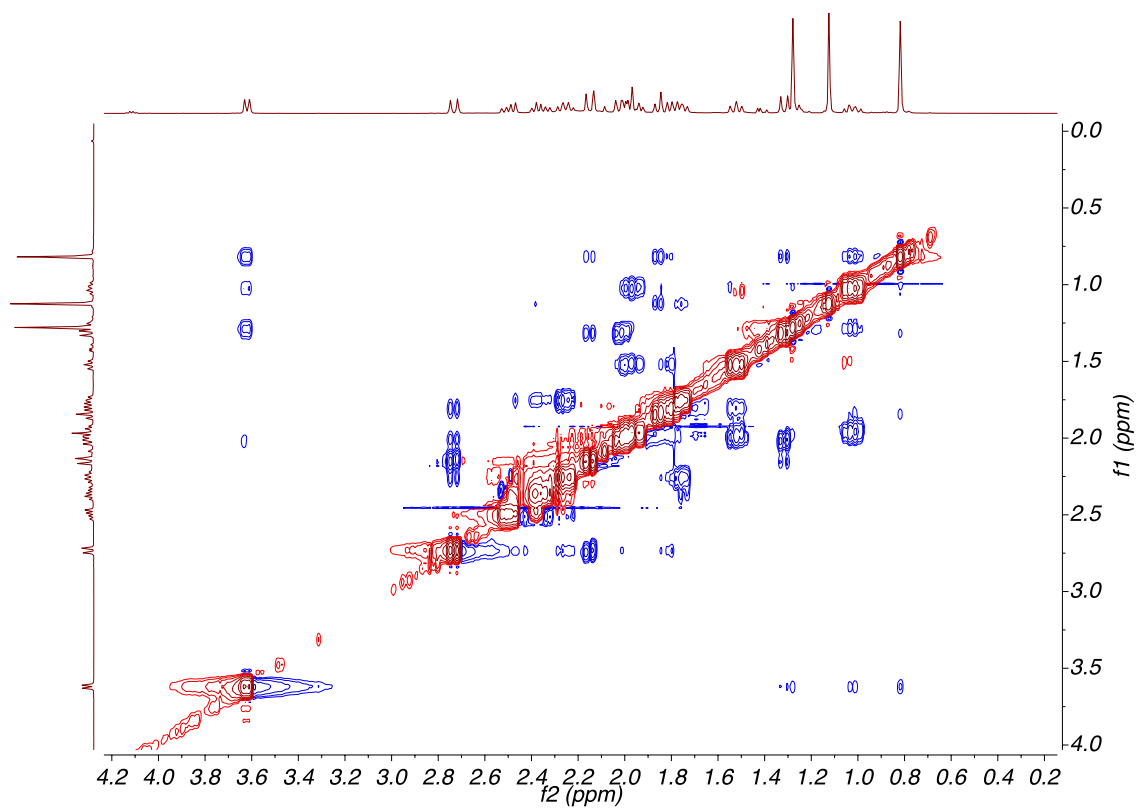
Infrared spectrum (Thin Film, KBr) of compound **24**.



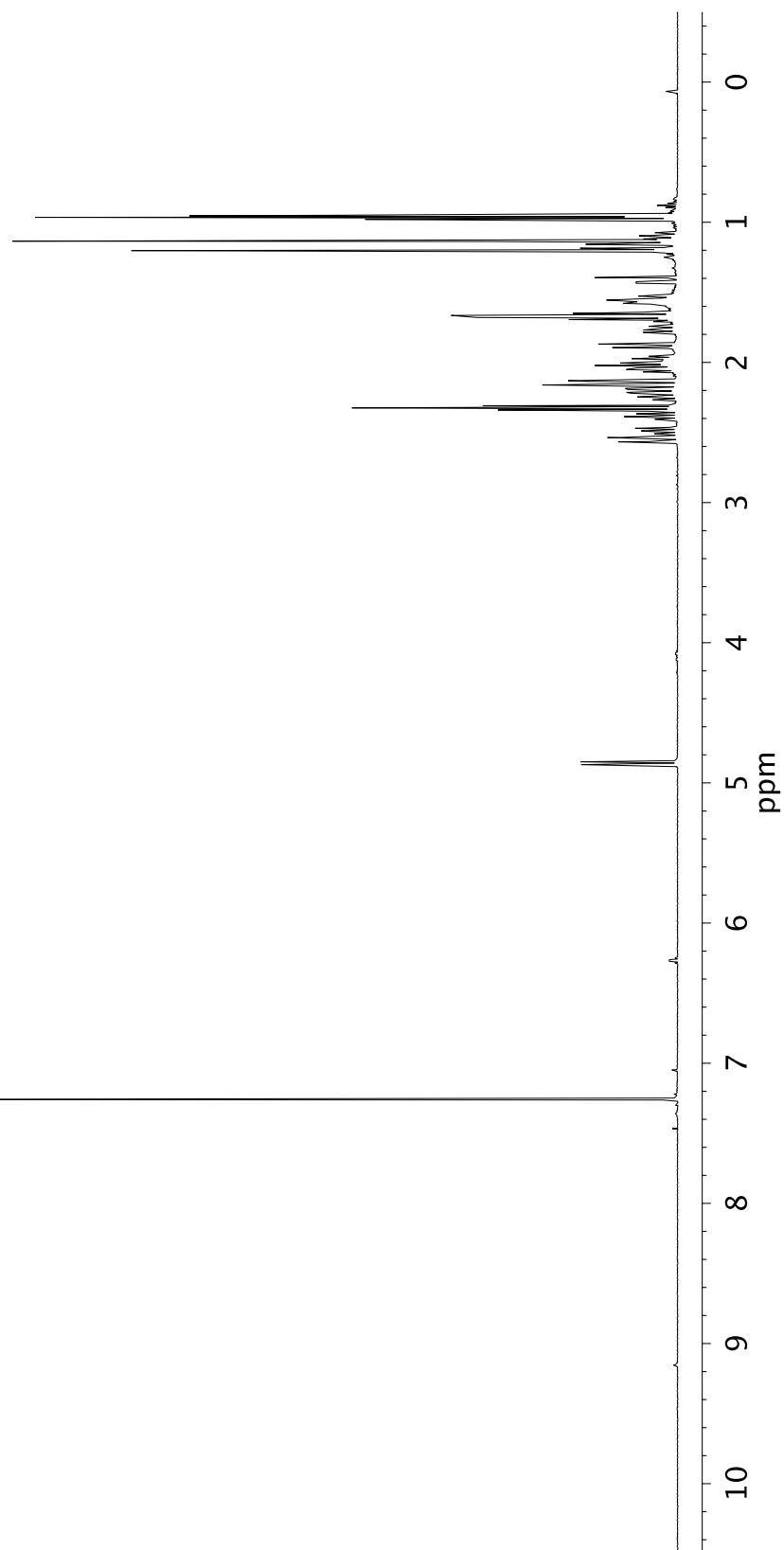
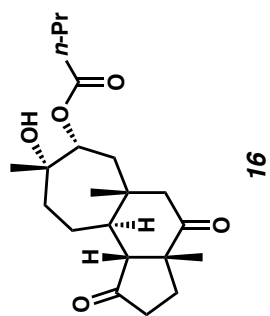
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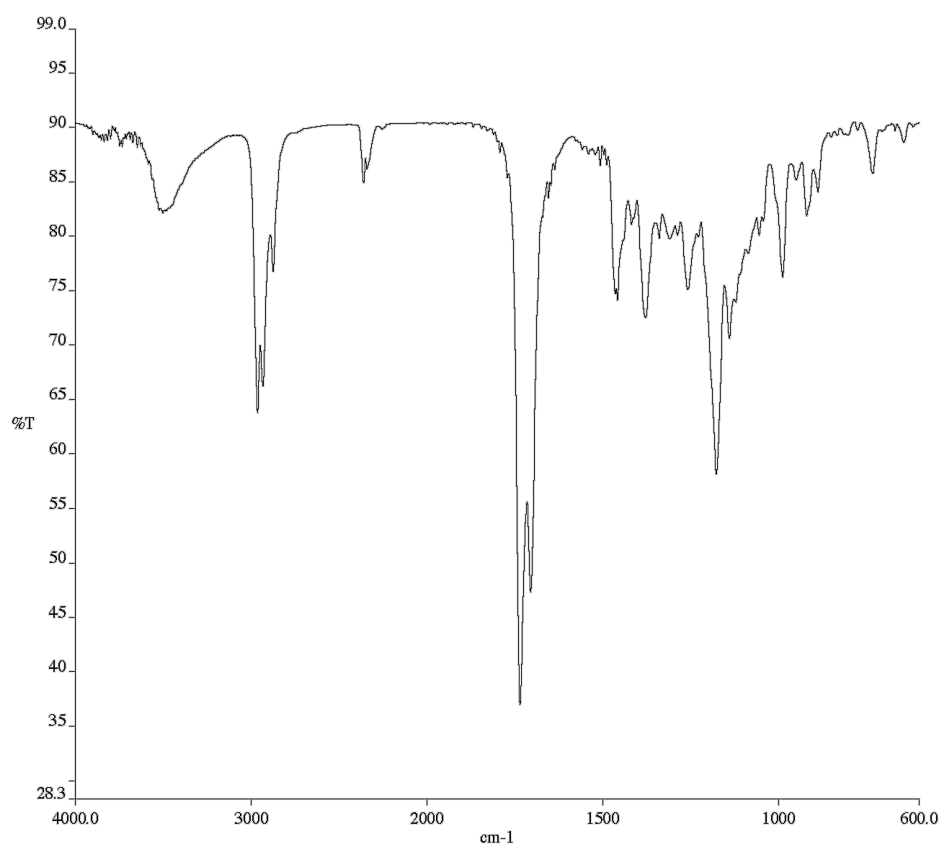
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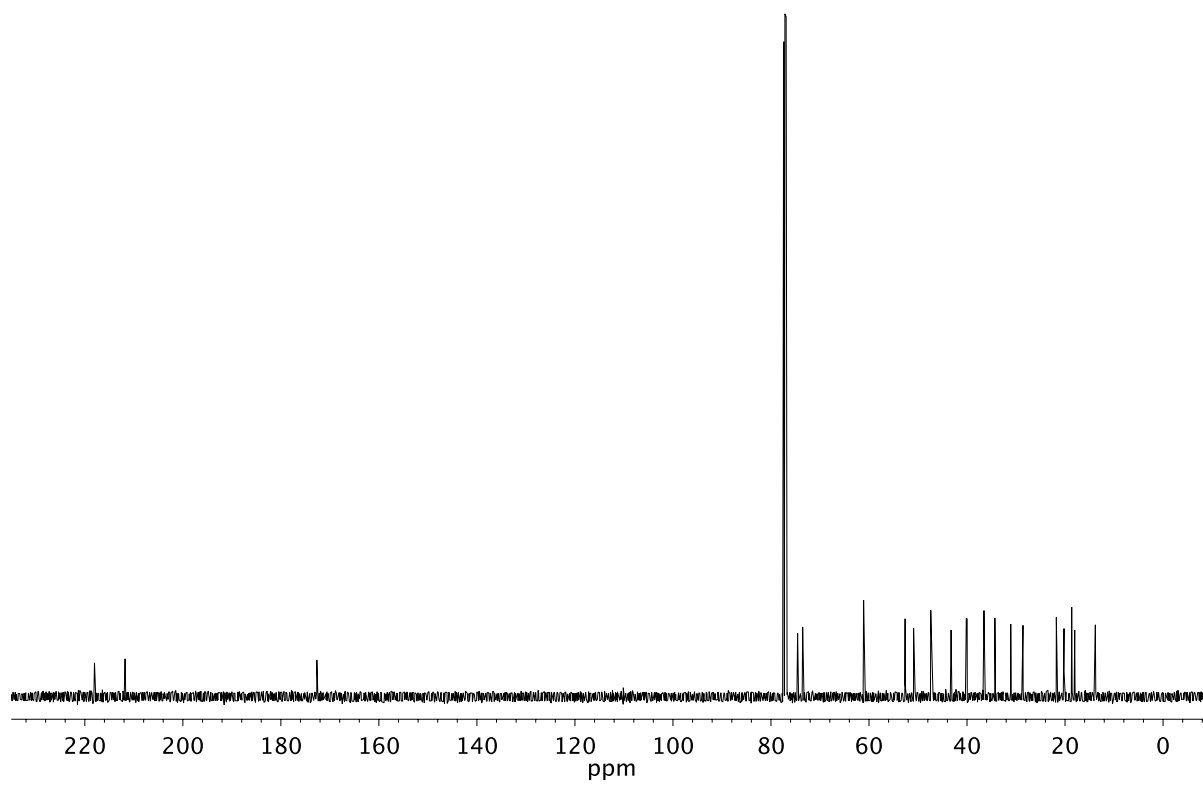
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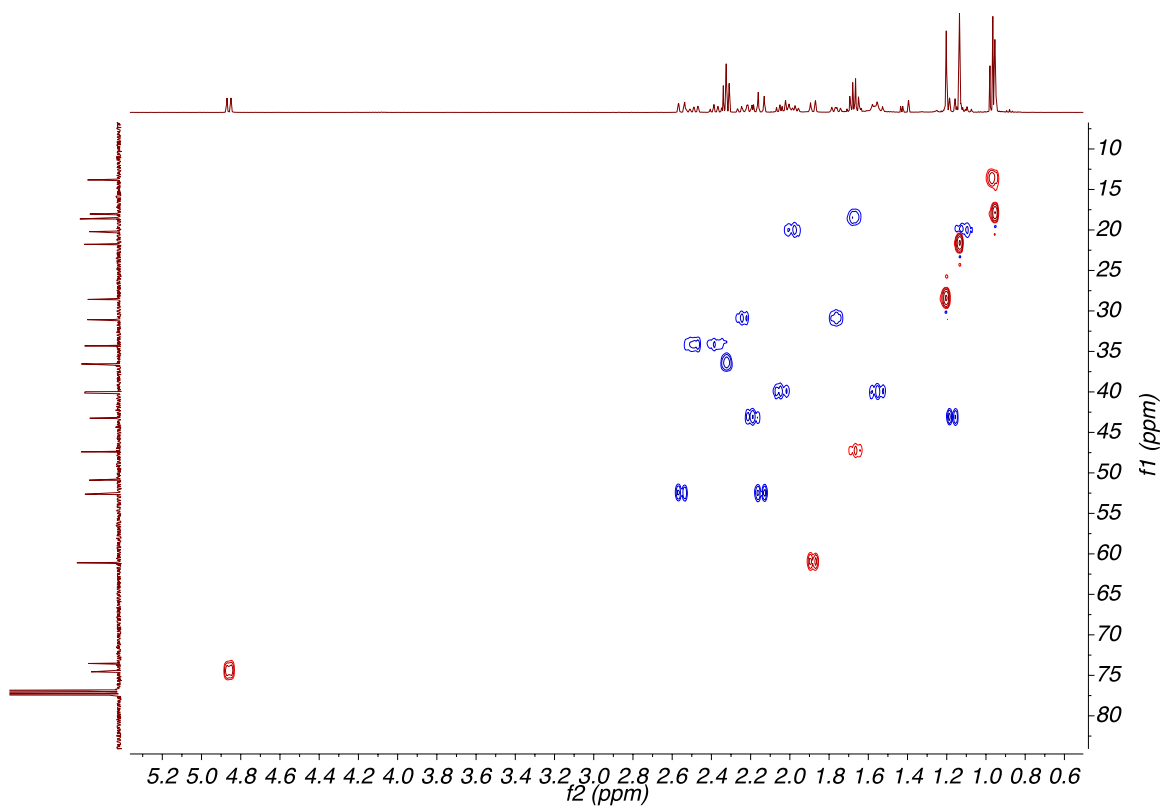
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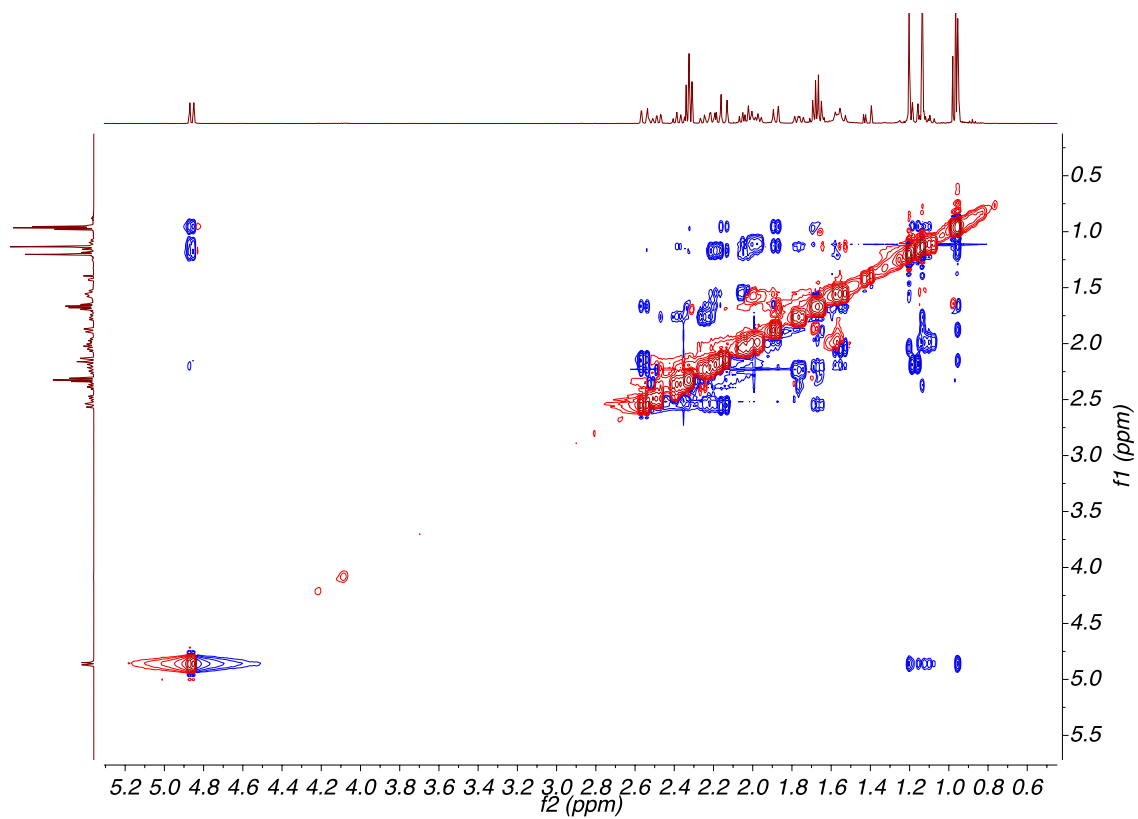
Infrared spectrum (Thin Film, KBr) of compound **16**.



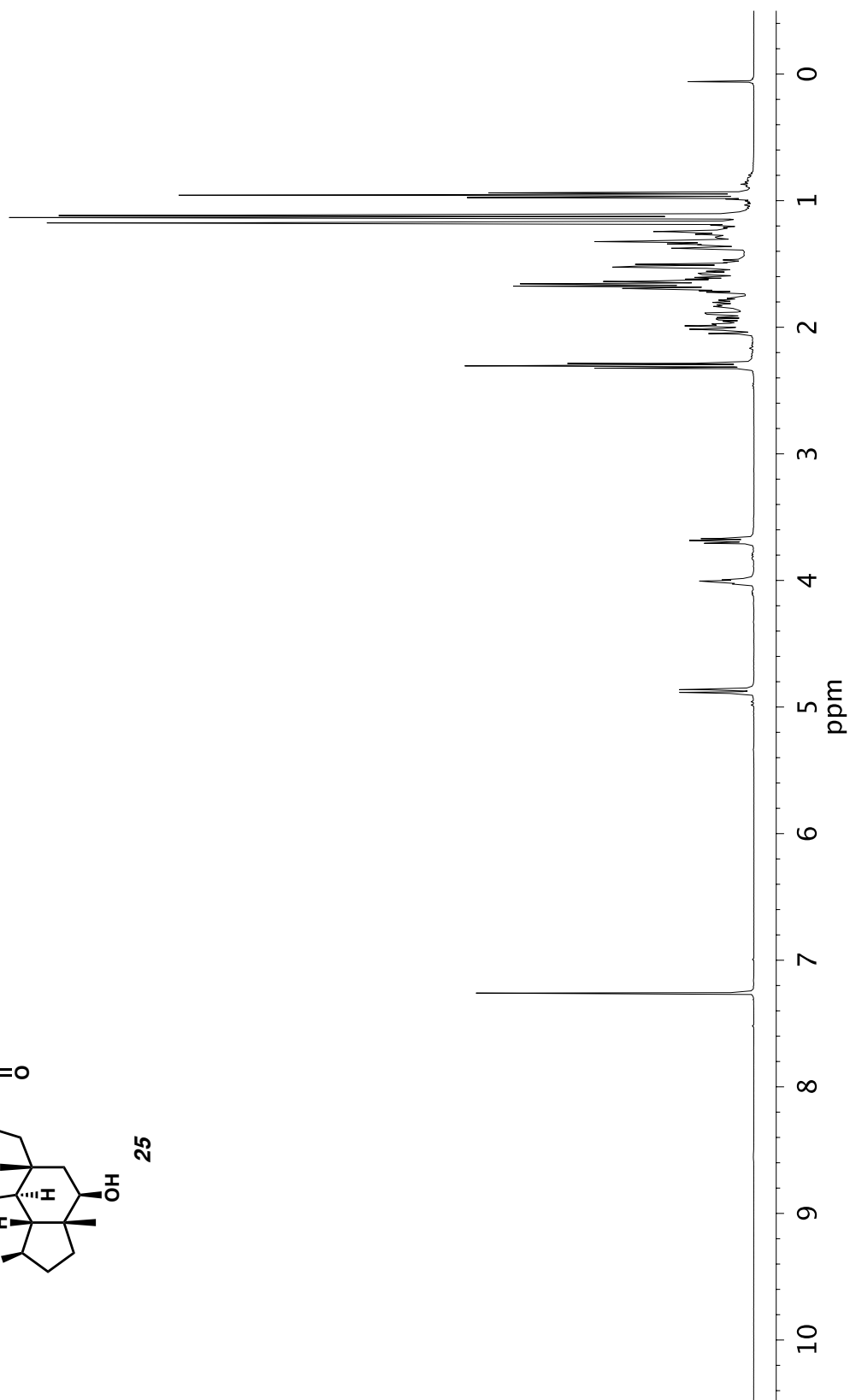
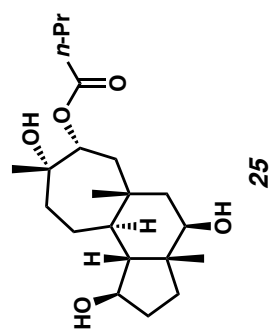
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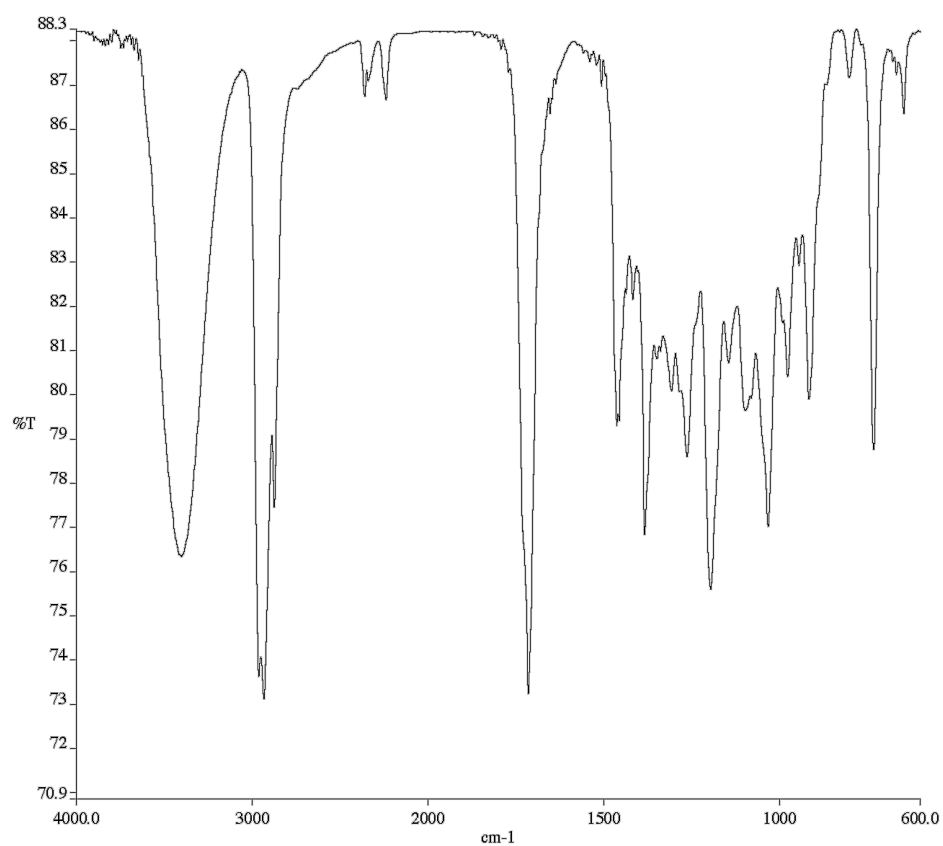
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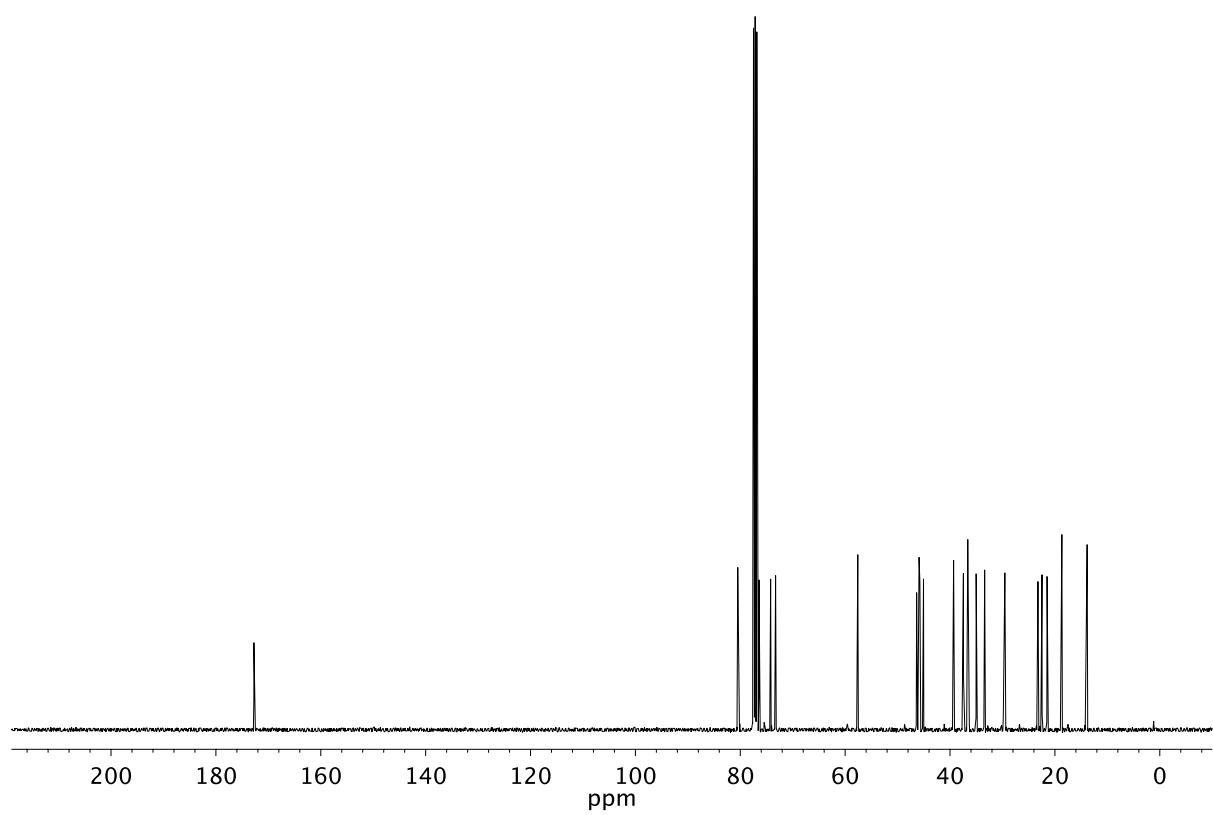
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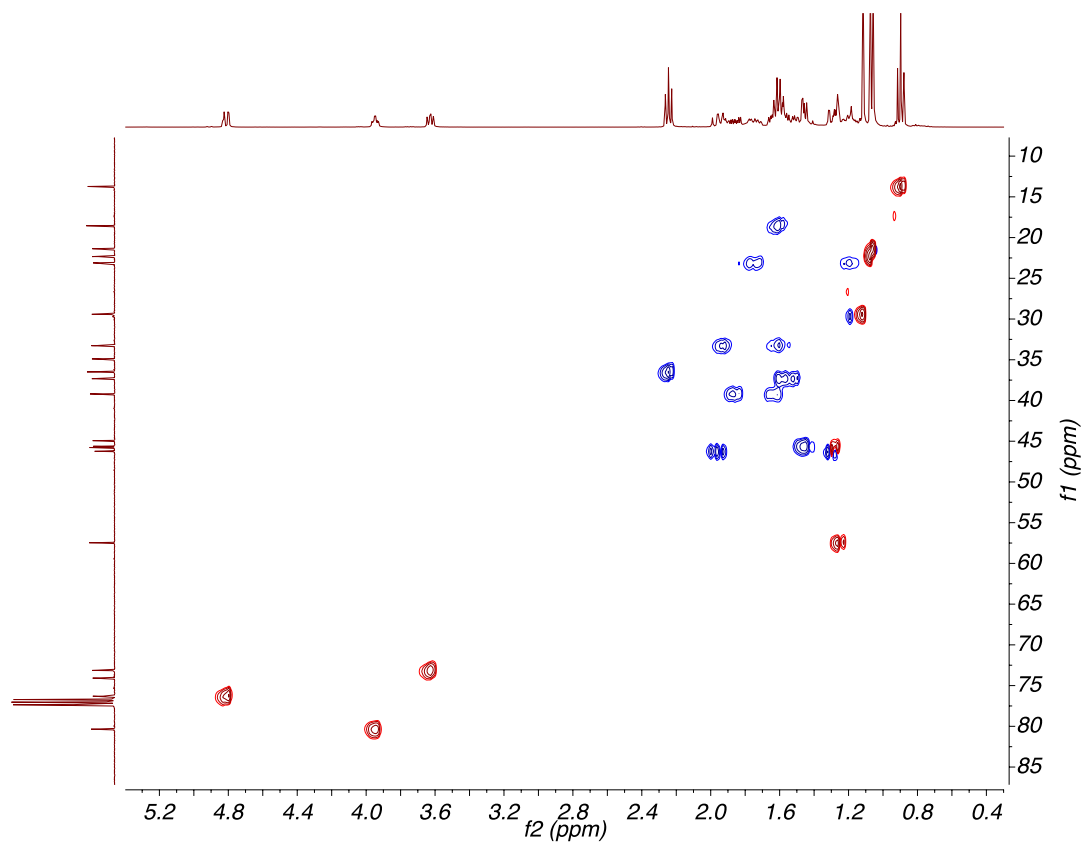
^1H NMR (400 MHz, CDCl_3) of compound **25**.



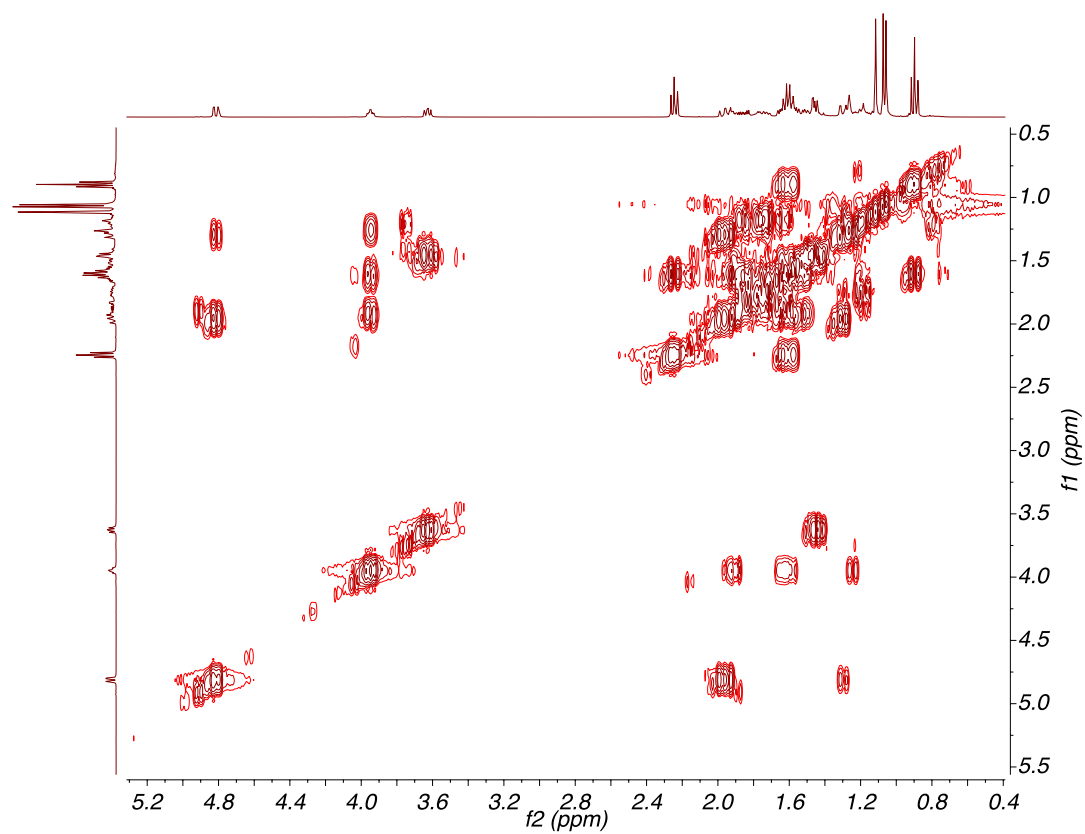
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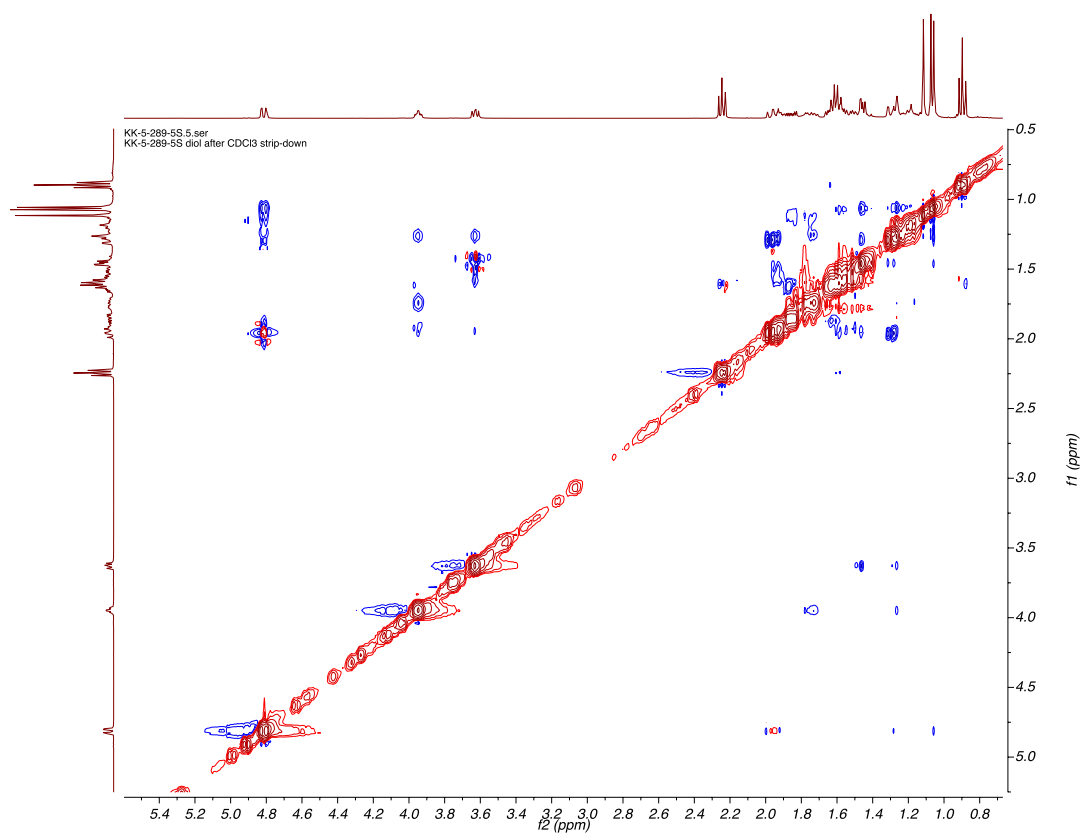
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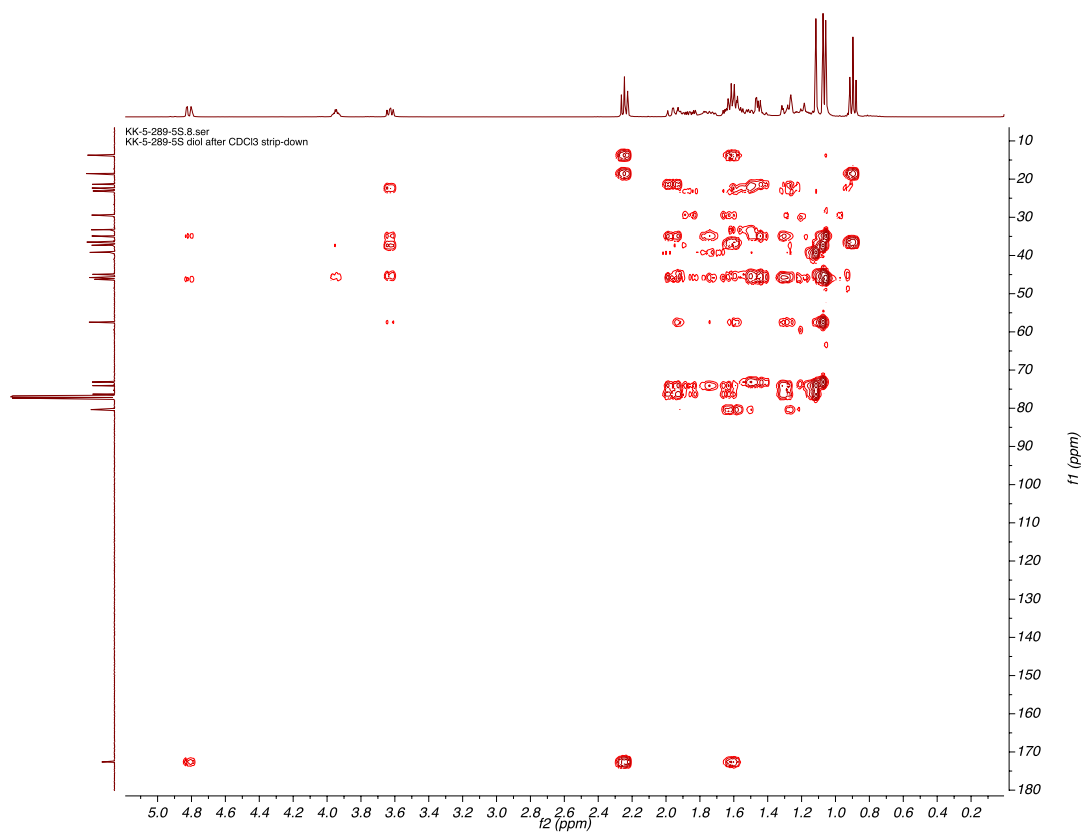
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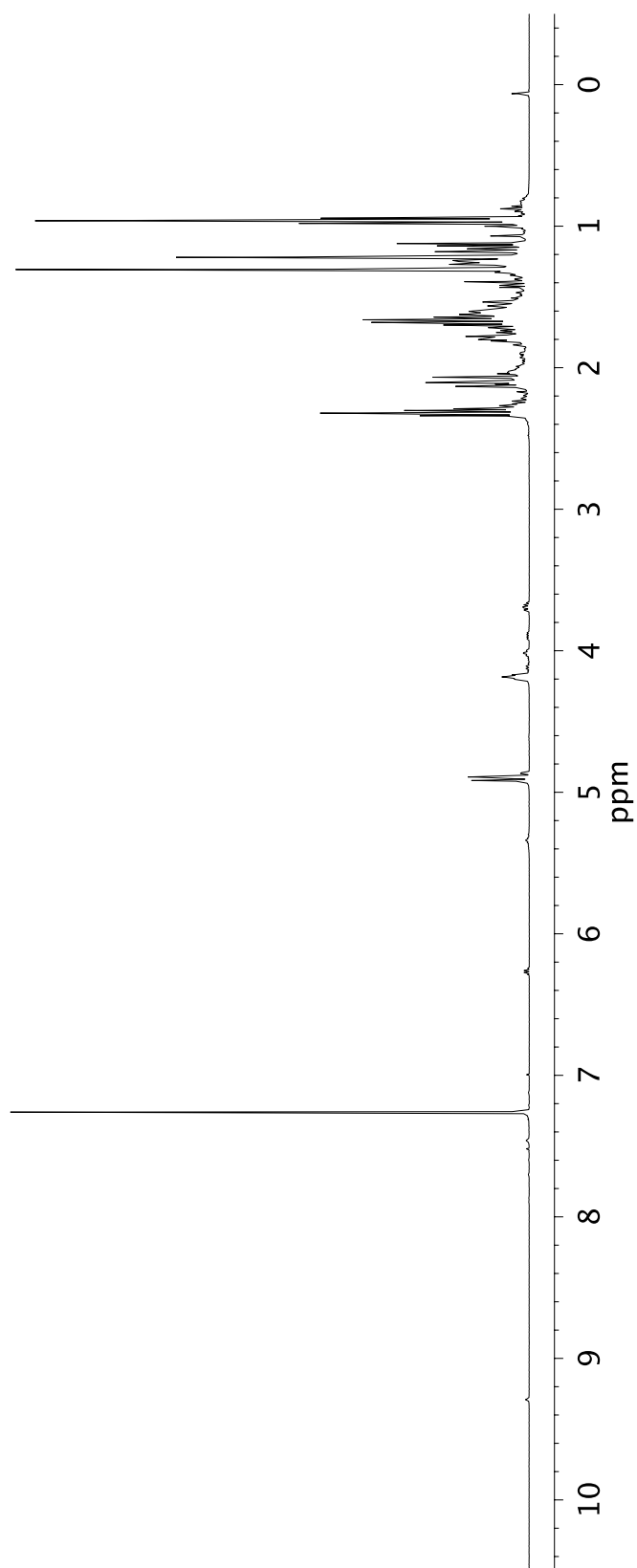
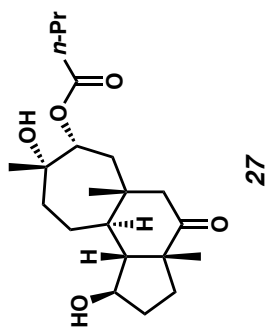
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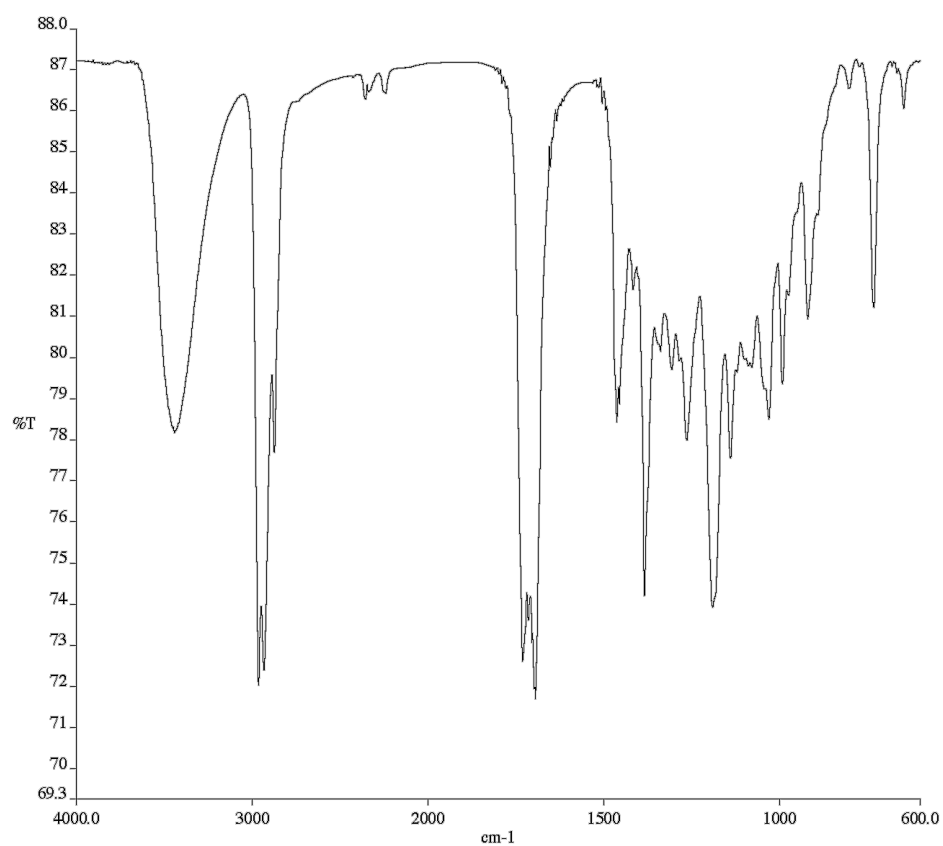
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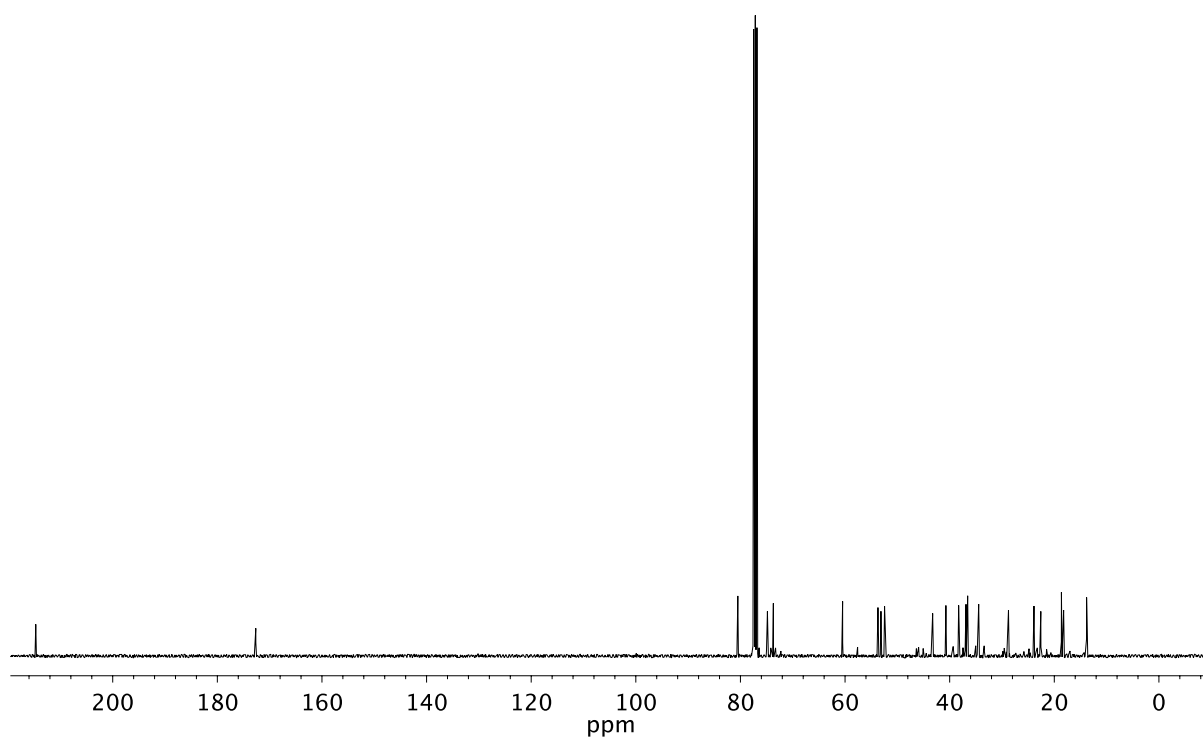
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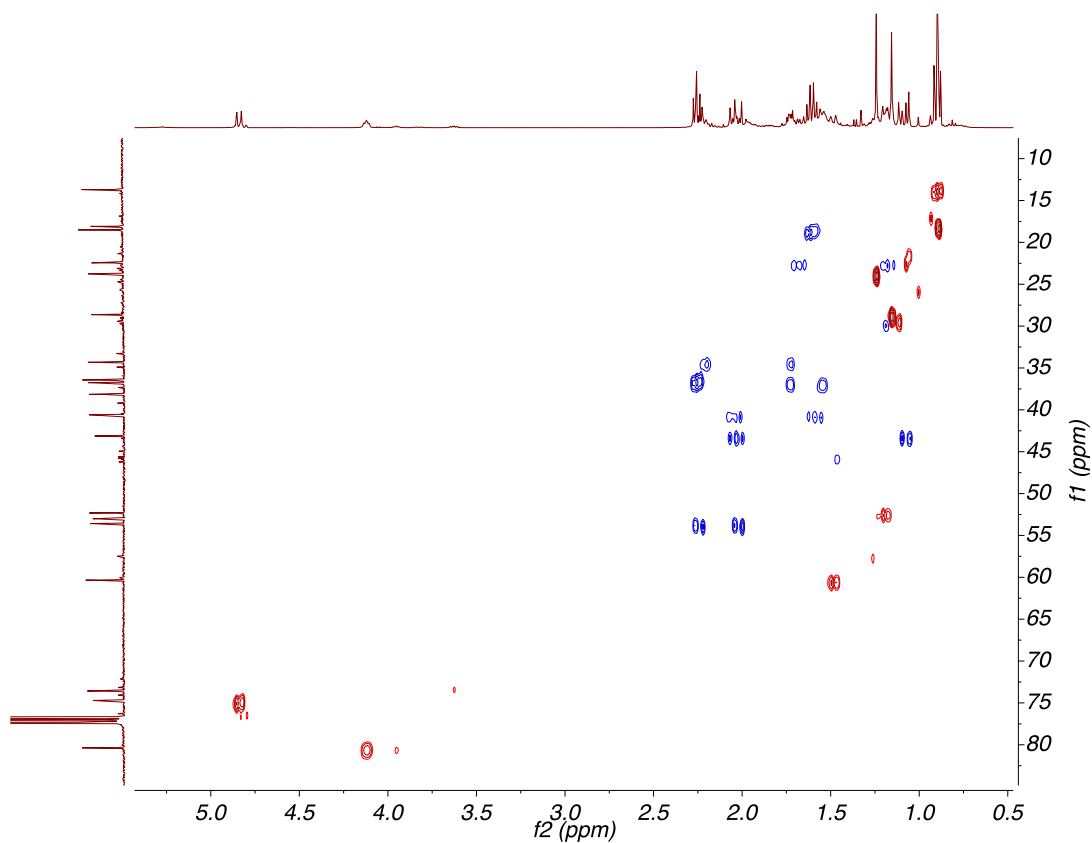
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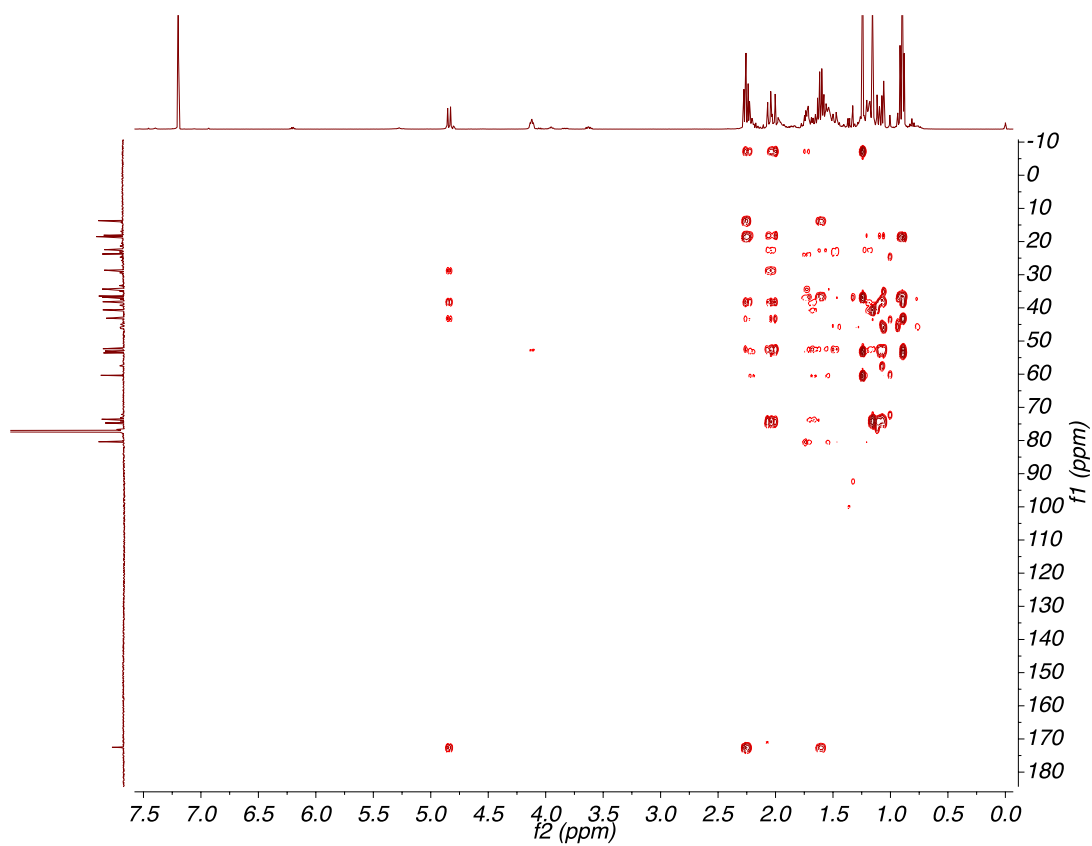
Infrared spectrum (Thin Film, KBr) of compound **27**.



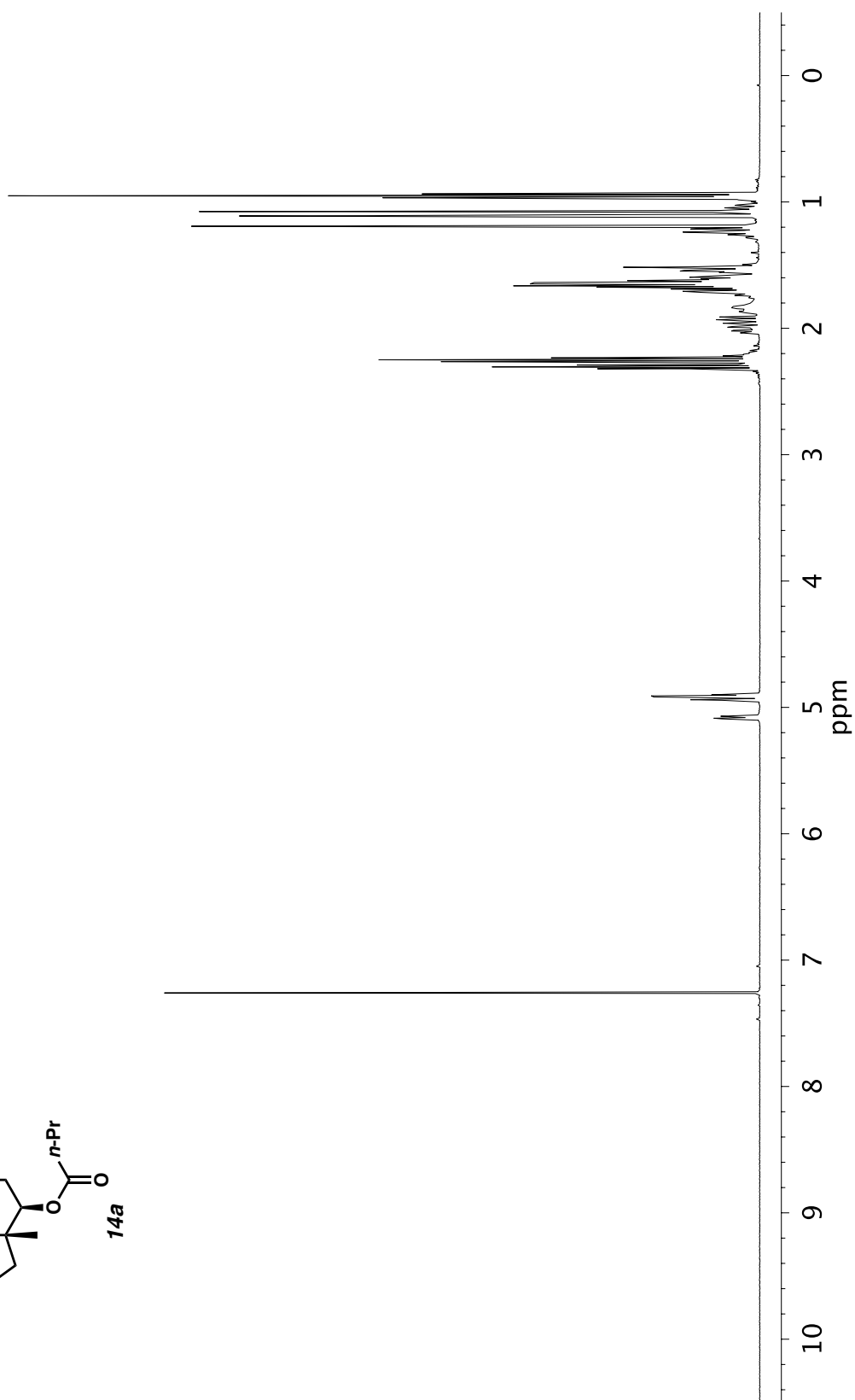
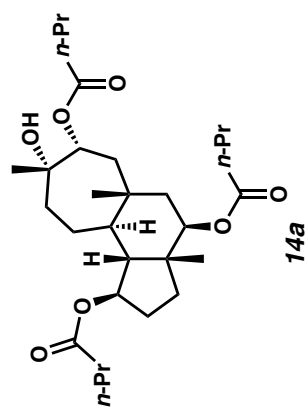
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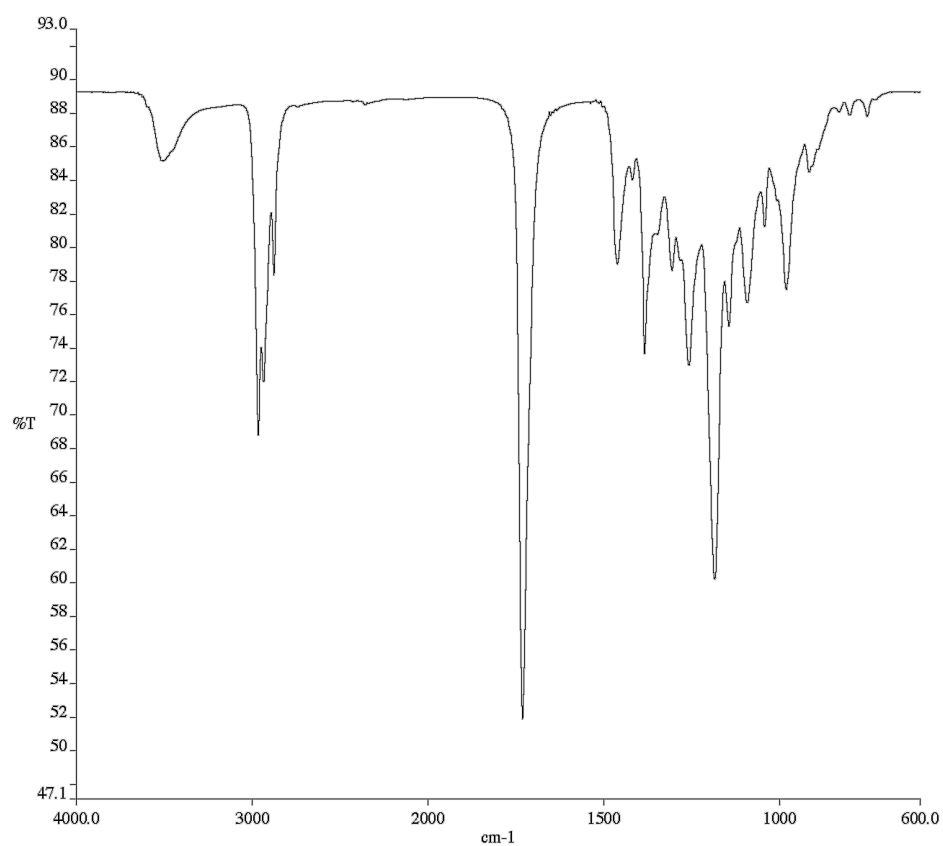
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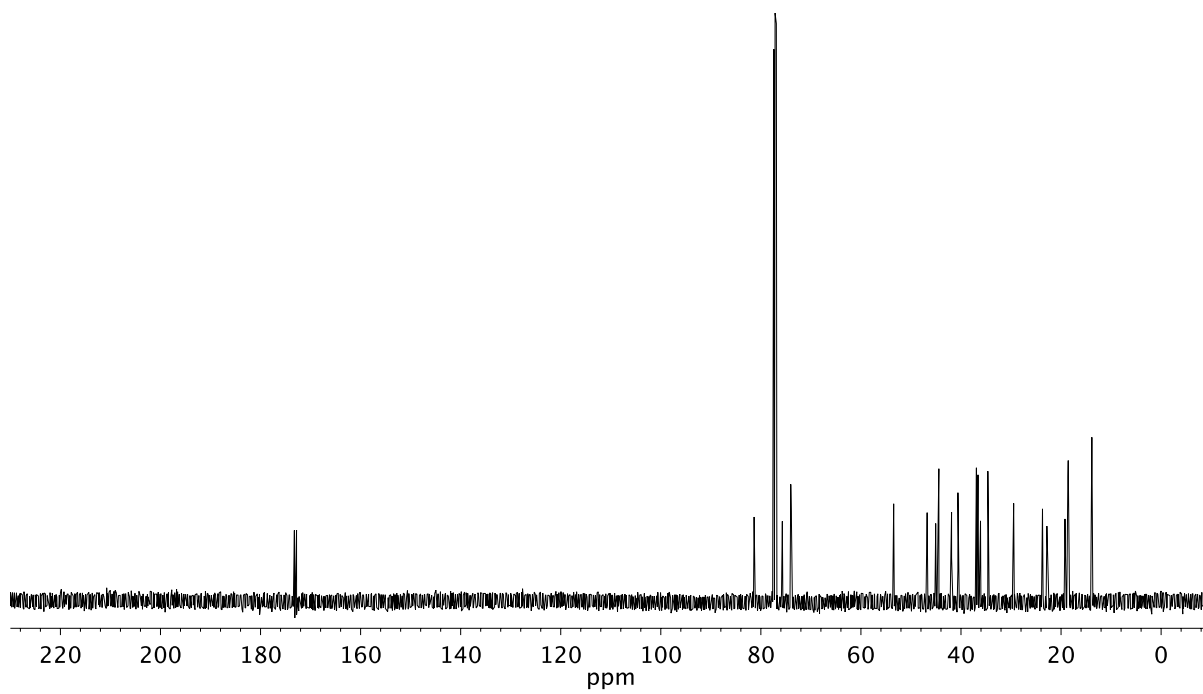
HMBC (400, 101 MHz, CDCl_3) of compound **27**.



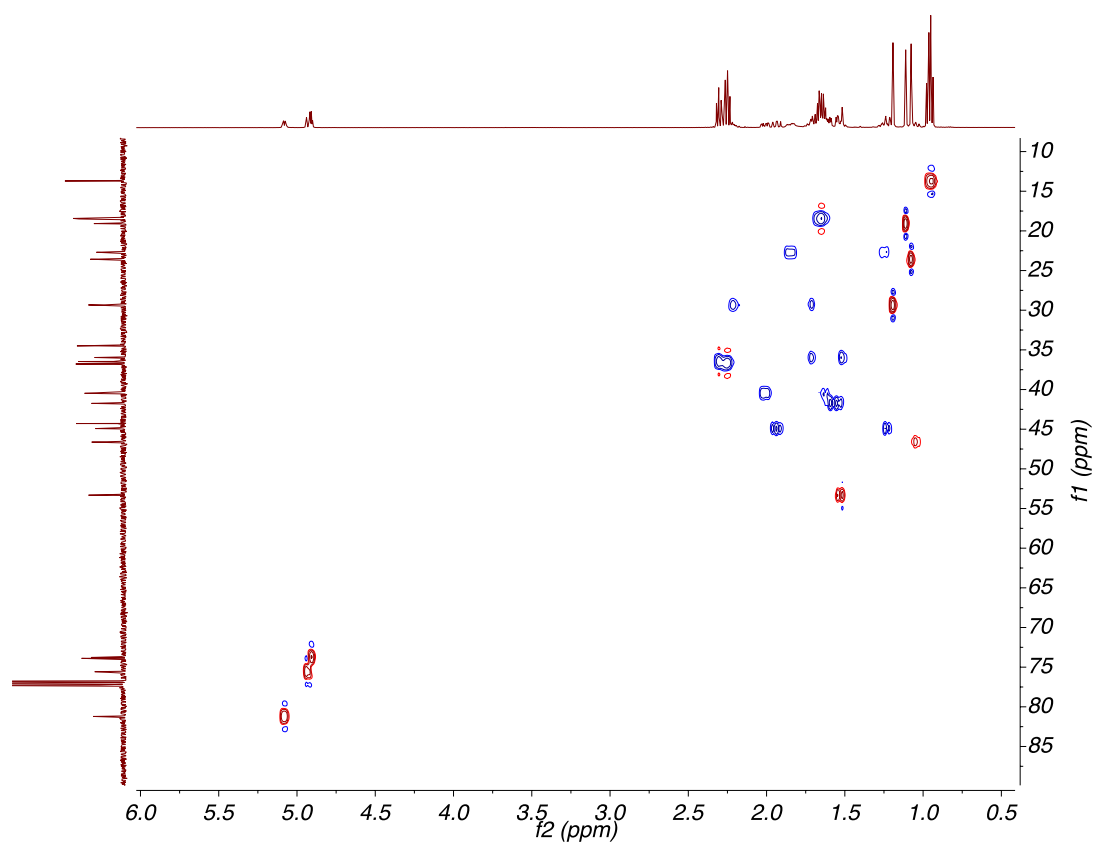
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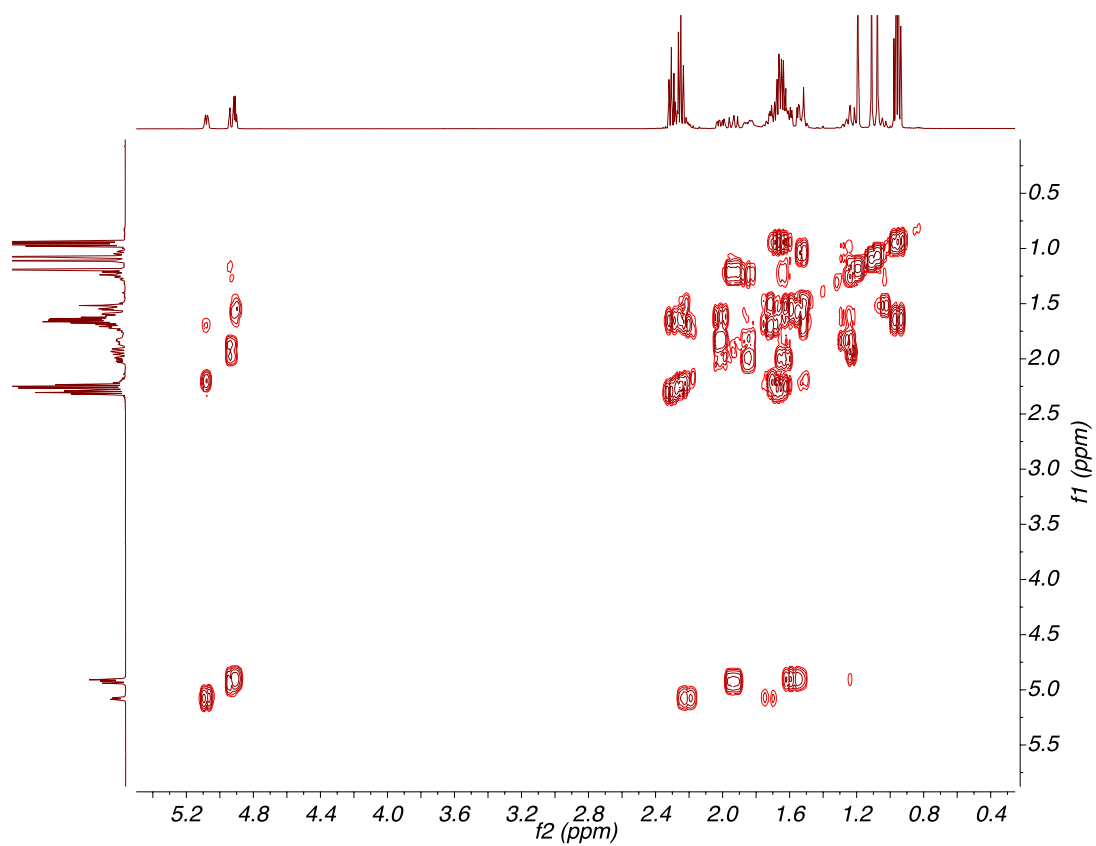
Infrared spectrum (Thin Film, KBr) of compound **14a**.



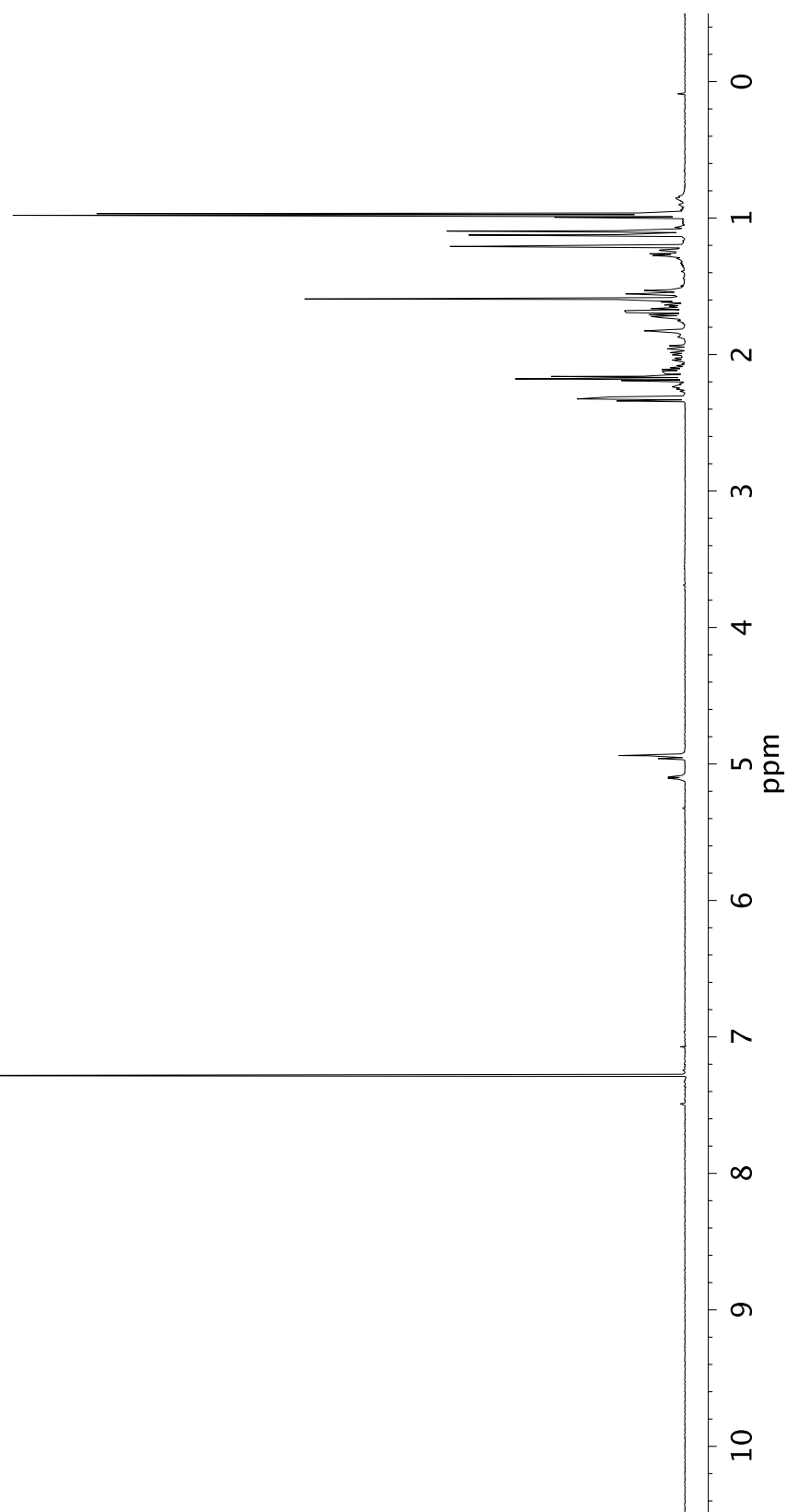
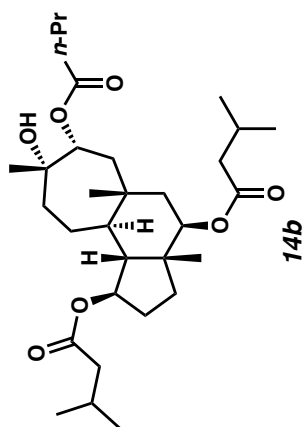
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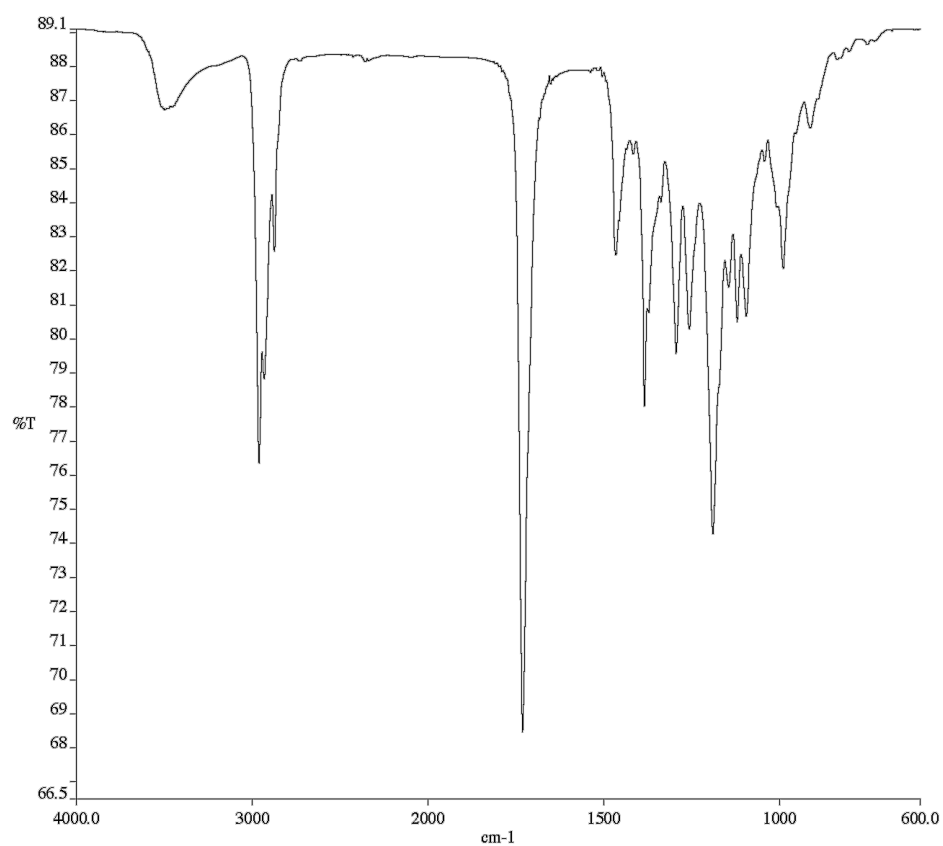
HSQC (500, 126 MHz, CDCl₃) of compound **14a**.



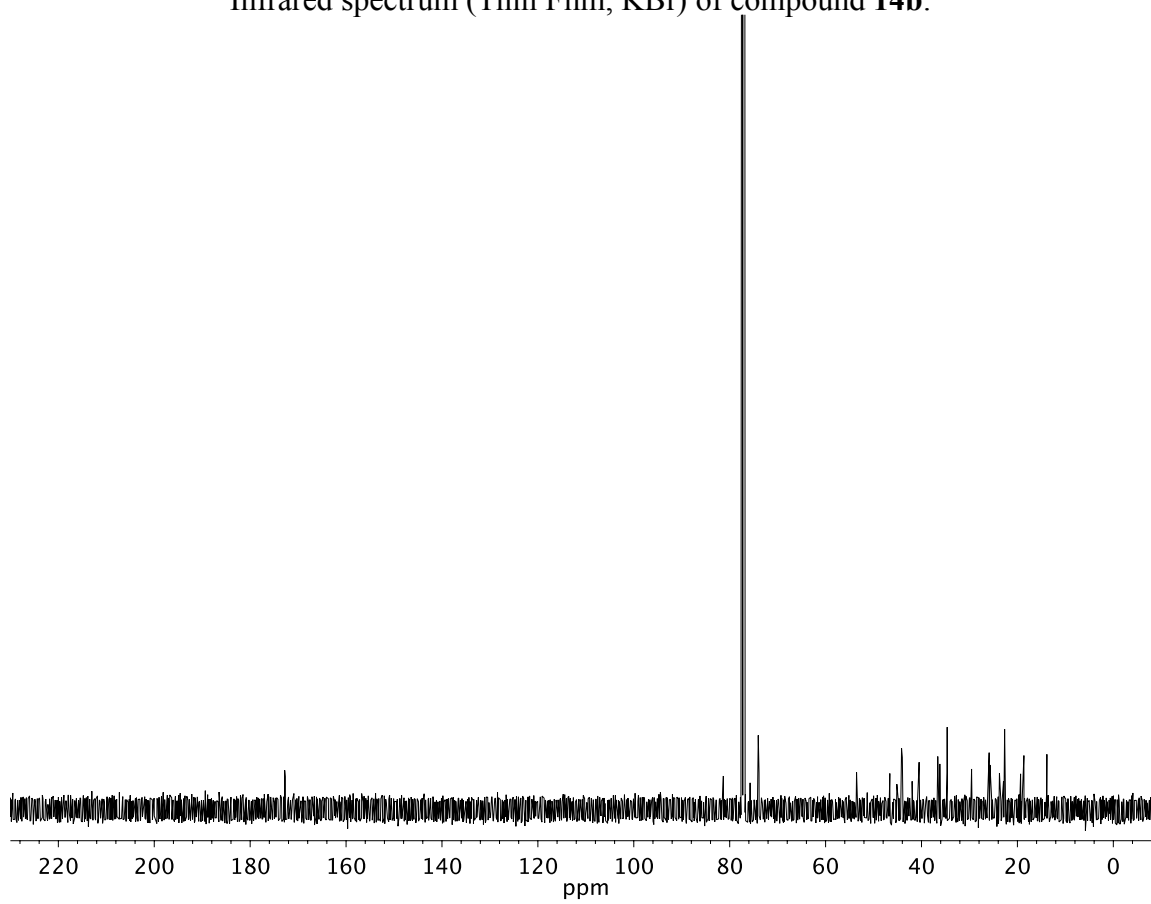
COSY (500 MHz, CDCl₃) of compound **14a**.



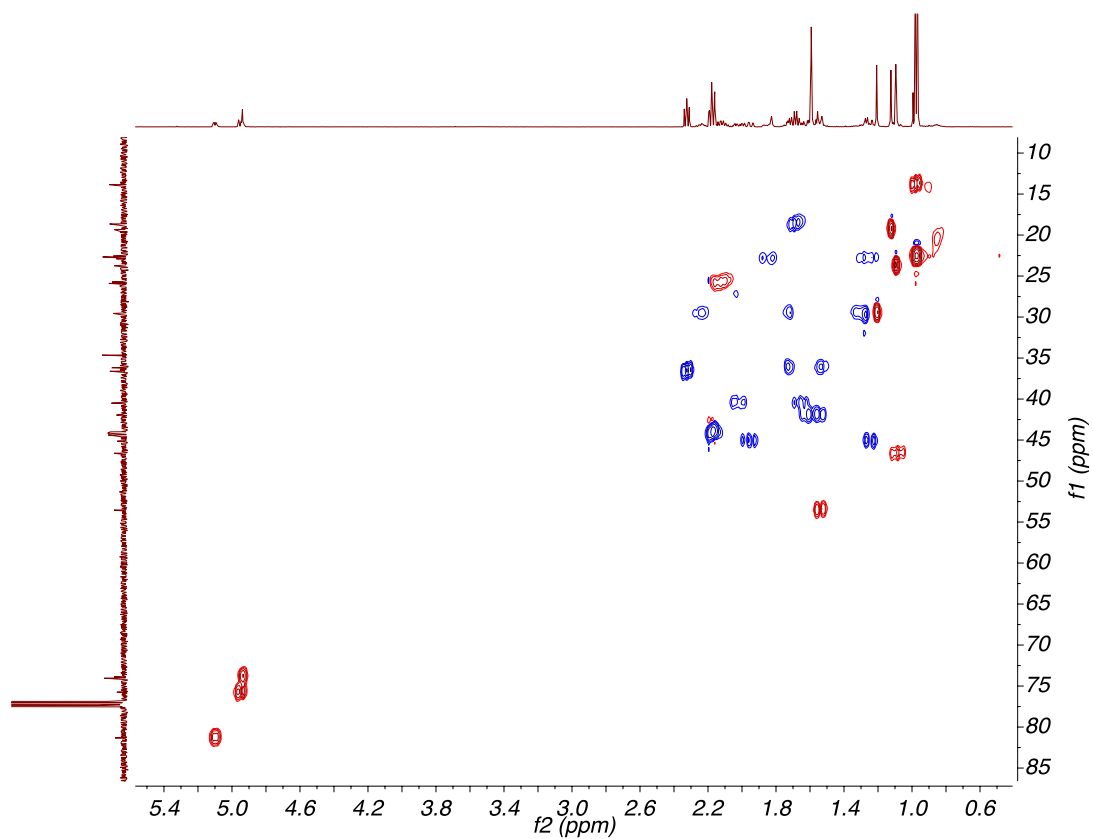
^1H NMR (500 MHz, CDCl_3) of compound **14b**.



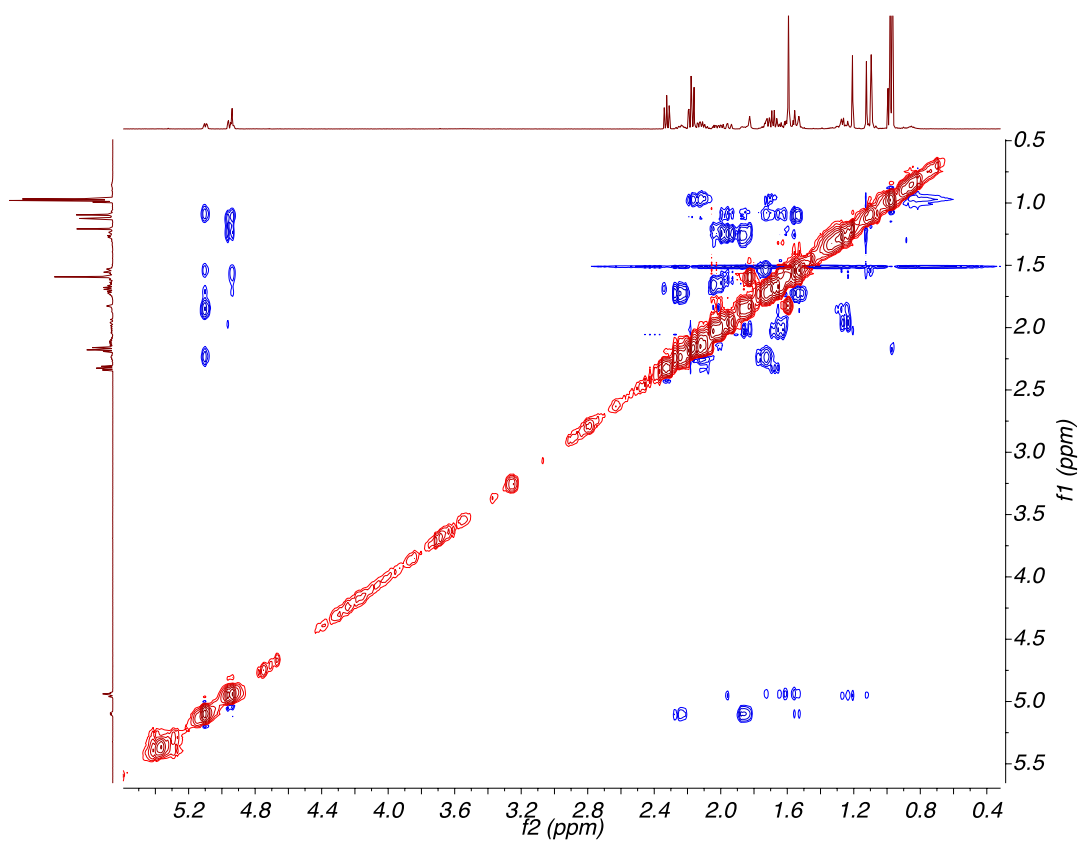
Infrared spectrum (Thin Film, KBr) of compound **14b**.



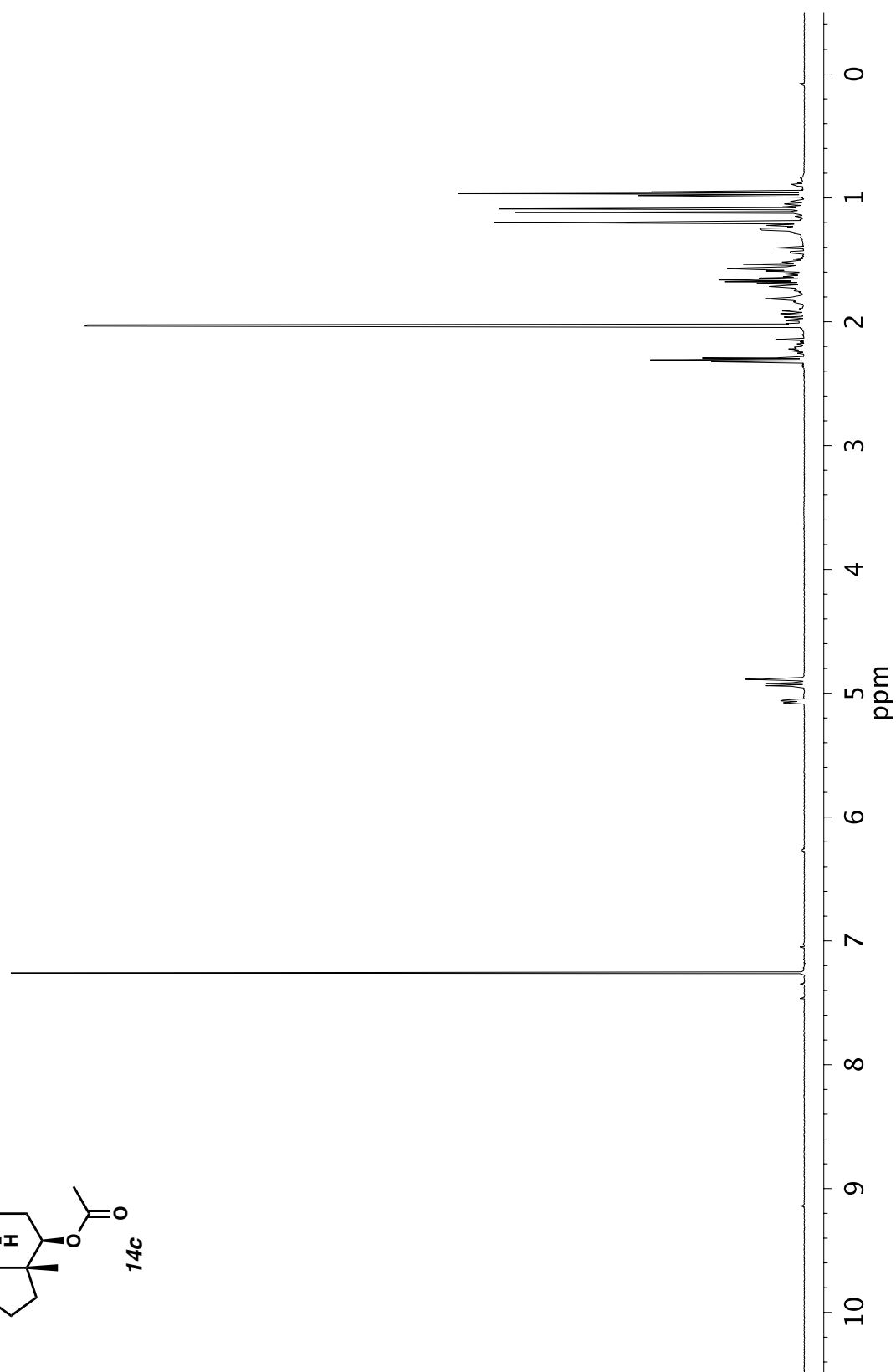
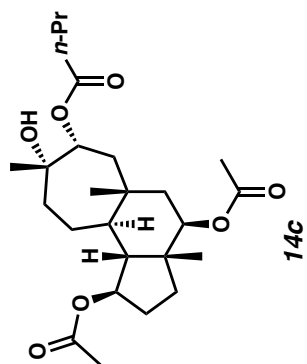
¹³C NMR (126 MHz, CDCl₃) of compound **14b**.



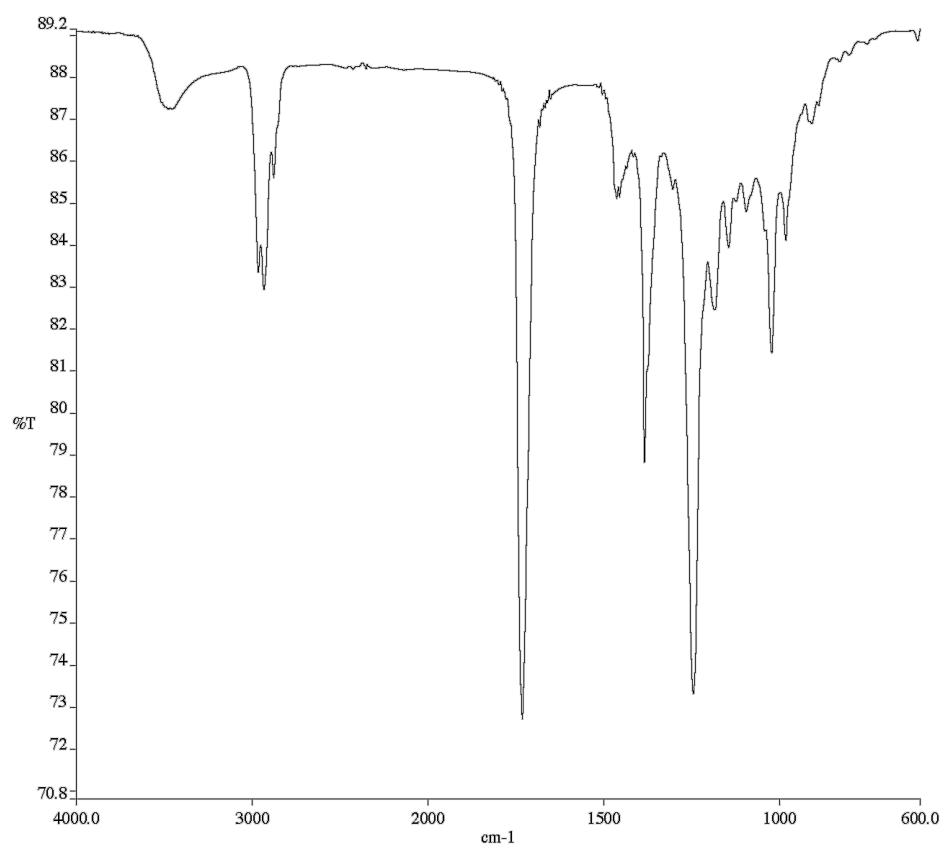
HSQC (400, 126 MHz, CDCl_3) of compound **14b**.



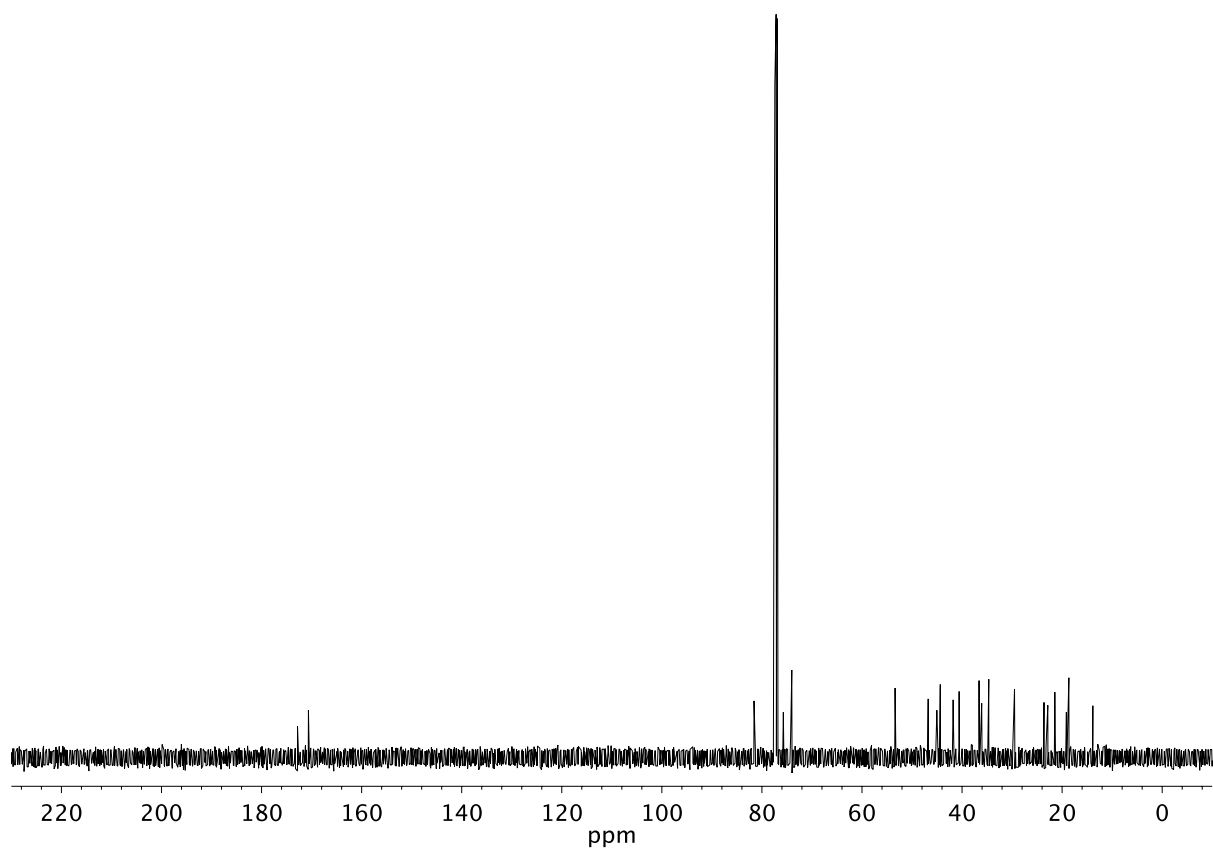
NOESY (400 MHz, CDCl_3) of compound **14b**.



^1H NMR (500 MHz, CDCl_3) of compound **14c**.



Infrared spectrum (Thin Film, KBr) of compound **14c**.



¹³C NMR (126 MHz, CDCl₃) of compound **14c**.

